Ontario
Ministry of
Community and
Social Services

The Ontario
Mental Health
Foundation

IMPROVING SERVICES FOR CHILDREN: *Research Summaries*

Ministry of
Community and
Social Services

Office of the
Minister

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Hepburn Block
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September 1986

Dear Colleague:

I am pleased to enclose a report entitled Improving Services for Children: Research Summaries.

The report is a compendium of more than 60 studies from a research program made possible through funding of $4,000,000 from "The Provincial" Lottery. The program was sponsored by the Ministry of Community and Social Services with the major grants component being administered by the Ontario Mental Health Foundation.

Improving Services for Children is the result of seven years' work by researchers and other experts who collaborated to provide and bring together information vital to the future best interests of children throughout this province.

Copies are being sent to those people in Ontario who are especially involved in providing services for children.

This publication is organized to provide you with easy access to the findings of the research studies. I trust that you will find certain results applicable to your work with children.

Sincerely,

John Sweeney
Minister

Improving Services for Children:
Research Summaries

Program sponsored by
the Ministry of Community and Social Services, Ontario

Administered by
the Research and Program Evaluation Unit
In co-operation with
the Ontario Mental Health Foundation

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ACKNOWLEDGEMENTS

One of the first tasks of the former Children's Services Division of the Ministry of Community and Social Services (MCSS) was to make application to "The Provincial" Lottery for an allocation to support research that would improve the quality of services for children. When the $4,000,000 allocation was received, Dr. Clive Chamberlain, former Executive Co-ordinator of Program Policy, and Dr. J.M. Cleghorn, Chairman of the Advisory Board of the Ontario Mental Health Foundation (OMHF), initiated a co-operative effort to administer the grants component of the research program. Subsequently, Mrs. Patti L. Fleury, Chairperson of OMHF, agreed to the plans for the first year's grants competition. OMHF's staff, particularly Mrs. Margaret Clark, Executive Director, and Dr. Dugal Campbell, Scientific Consultant, played crucial roles in handling this aspect of the program. On behalf of MCSS, Dr. Roma Scott co-ordinated the development and implementation of the overall program including the ministry-directed projects.

In the first year of awards, when one competition was administered by OMHF and another by MCSS, over 100 proposals were received, indicating the keen interest shown in the program by the research community. In the second through fourth years of grants competitions, approximately 50 proposals a year were submitted to OMHF.

The Ministry of Community and Social Services is greatly indebted to all the individuals who participated over the years in the research program: first, to the researchers for their enthusiastic response to the program and their perseverance with important challenging studies; second, to the members, listed below, of OMHF's expanded Research Committee and MCSS's specially created Research Advisory Committee for Children's Services for their tireless efforts in reviewing the submissions; third, to the host of external appraisers who generously brought to the task their relevant experience and technical expertise; and, finally, to the committee members and MCSS staff with knowledge about the implications of particular topics who assessed the final reports of the research studies.

In addition to the grants competitions, the Lottery funds enabled MCSS to develop its prevention initiatives involving a major epidemiological survey and evaluations of ministry prevention programs. MCSS-directed research also included several special projects initiated by head office or field staff concerning important topics. These projects owed their success to the firm commitment of ministry staff and the co-operative efforts of many people: consultants conducting this research, agency staff participating in the projects, members of MCSS's Research Advisory Committee and the advisory committees designed

for each project, and staff from the Research and Program Evaluation Unit assigned to provide assistance and consultation.

This publication has been made possible through the efforts of a committee: Dr. Dugal Campbell; Dr. Arlene Hoffman and Dr. Roma Scott (senior research analysts, MCSS Research and Program Evaluation Unit); as well as two consultants, Ms Barbara Kerr (editor) and Ms Margot Boland (graphic designer).

To everyone who assisted in the publication of this report, the committee would like to express sincere appreciation.

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September 1986

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INTRODUCTION

In 1979, the Ministry of Community and Social Services received from "The Provincial" Lottery a $4,000,000 allocation designated for research in Ontario to improve the quality of children's services.

MCSS identified two priority areas for the research program, with the higher being the development of services aimed at preventing serious problems for children and families, i.e., primary prevention. The goal of primary prevention is to reduce the incidence of new cases in a population through activities that seek to prevent certain disorders and dysfunctions. Efforts in primary prevention concentrate on (a) modifying individuals' stressful environment and (b) strengthening individuals' ability to cope with stress.

The second priority area identified was intervention evaluation — research designed to test the effectiveness of (a) treatment and rehabilitation strategies for specific disorders, disabilities, or problems and (b) services that aim to keep together families whose child would otherwise be placed in residential care.

The distribution of the Lottery funding permitted research activities to be conducted over a period of seven to eight years. The funds were divided between two types of program. The first type was a grants program, administered in most cases through the Ontario Mental Health Foundation (OMHF). Competitions were held inviting research submissions in the two priority areas, and collaboration was encouraged between the academic research community and the various agencies serving children. All submissions made to OMHF were subject to a peer review process. The second type of program funded was a projects program, administered by MCSS and including epidemiological research, special projects initiated by various MCSS head office or field staff, and evaluations of MCSS-funded prevention programs.

In all, 63 studies were funded, 38 under the grants program and 25 under the projects program. Only a few are not yet complete. Funding for the grants program amounted to approximately $2,616,000 administered by OMHF and $210,000 by MCSS. For the projects program, $609,000 was allocated to special projects and $1,076,000 to prevention implementation.

If clients of social service programs are to benefit fully from research and program evaluation activities, the results of the activities must be disseminated extensively. The present publication describes the Lottery studies and is intended as a resource, particularly for individuals in agencies who may not have access to the journals in which research is usually reported. Many of the studies have potential applications or implications that could benefit other organizations beyond the one responsible for the study. The reader is encouraged to contact the investigators directly.

The publication is presented in two major parts. Part I contains summaries of each study (except the two for which no preliminary report is yet available), giving the objectives, methodology, significant findings, and implications of the findings. Part II provides some basic information about each study, as well as the sponsoring organization, principal investigator/contact person, and reports or publications deriving from the study. Both parts are organized by topic areas within three sections (primary prevention studies, intervention evaluation studies, and other studies), and the studies are presented in the same order in each part. Studies administered by OMHF have those initials after the title. The publication concludes with an Index of Investigators and an Index of Titles to facilitate reference.

Part I

SUMMARIES

PRIMARY PREVENTION STUDIES

Overview

The relationship between stressful life events and emotional and physical illness in children and adults has been frequently demonstrated. Since social support and coping skills have been found to aid in protecting individuals against the harmful impact of stressful events, programs that enhance individual supports or foster individual competence have been thought to help in preventing emotional and physical illness.

Certain indicators (e.g., poverty, single parent household, minority group) are associated with a greater likelihood of developing emotional or social problems. Prevention programs use these indicators to help select the target groups and communities for intervention, as evidenced by the studies summarized here.

The 24 studies in this section are divided into five topic areas: high risk infants, parenting, community outreach, developmental handicaps, and mental health. Half the studies result from MCSS initiatives in primary prevention, with the stress on community outreach and parenting. Also included is the epidemiological research venture, the Ontario Child Health Study, which is exceptional for its large number of subjects and the comprehensive nature of its enquiry.

High Risk Infants

SURVEY AND EVALUATION OF INFANT STIMULATION PROGRAMS IN ONTARIO

John Renner, A.R.A. Consultants (on behalf of MCSS)

Infant stimulation programs are designed primarily for infants who are developmentally disabled (i.e., who have a congenital or chronic physical condition, such as Down's syndrome or a convulsive disorder) or infants who are at risk because of environmental deprivation (i.e., who are considered vulnerable for developmental delays because of adverse environmental conditions within the family, such as parents with addiction problems or a mother with a low level of intelligence). The major goal of the programs is to organize and enrich the infants' sensory experiences so that development in key areas is facilitated. Since no

overview of infant stimulation programs in Ontario or assessment of their effectiveness had been carried out, the present research project was commissioned. The aim of Phase I of the project was to provide a descriptive survey of all MCSS-funded infant stimulation programs in the province. The information collected would serve as a foundation for conducting Phase II, an evaluation of the effectiveness and efficiency of selected program aspects.

Phase I: At the time of the survey (1981), there were 40 programs, with 1570 active cases registered. A sample of 832 cases was selected for study, representing half of the active and half of the terminated cases in each of the 40 programs.

Data were collected through discussions with program staff and through two structured questionnaires: one was administered to program directors, and the other was used with the case files to extract descriptions of the clientele and the services they received.

The survey gathered considerable information in many areas, including the family and sociodemographic characteristics of the program users; the background, staffing, operation, and content of the programs; their service delivery aspects; and their major strengths and weaknesses. Only a few of the findings are mentioned here.

There were two major referral sources for programs — public health nurses (who accounted for 33%) and general practitioners (25%).

Most of the infants had multiple problems, but, in terms of a primary problem, 55% were developmentally disabled and 30% were environmentally deprived.

Although the types of family served covered a wide range of occupational and educational levels, about a third of the families were on public assistance. In about half the cases, the parents had serious personal problems (e.g., alcoholism, mental illness).

About a third of the programs administered the Bayley Scales of Infant Development to infants entering the program. To monitor the infants' progress, 73% of all programs administered the Bayley every six months, and 38% administered other tests.

Much information about the caseworkers' activities with both infant and mother, which is invaluable in assessing how the program was carried out, was not documented in the files. A completed Individual Program Plan (IPP) was present in only 37% of the cases, and a Mediator Training Plan in 26%.

The programs were serviced by 111 full-time staff. The majority of programs had experienced significant staff turnover during the previous three years. Many program directors perceived their staff as needing more training to do their job effectively, even in basic areas such as how to stimulate fine and gross motor development.

The investigators conclude that infant stimulation programs were generally well accepted in the community, and were operating to capacity as far as case loads and staff members were concerned. They also make several suggestions for improving programs (e.g., develop a reporting system including IPPs for each case; update the guidelines for programs).

Phase II of the project was divided into three studies.

The first study was designed to assess whether or not the service delivery mode used by programs is consistent with MCSS guidelines, which advocate using a mediator training model (in which the focus is on training the mother how to deal with her child).

The study focussed on six programs, selected to be representative of the range of number of infants served and completion rate of IPPs. The means of data collection included direct observations during home visits with a program worker, and a telephone interview with mothers after the home visits.

The observations revealed that the diagnostic category of the infant influenced worker behaviour, including mode of preparation for a visit, treatment during the visit, type of worker assigned to the case (those with a medical background appeared more likely to work with the developmentally disabled, and those with a psychological or educational background with the environmentally deprived), and record-keeping (e.g., only half as many IPPs were completed for the environmentally deprived as for the developmentally disabled).

There appeared to be very little documentation of the mediator training model, and to be some uncertainty as to what form a plan might take for environmentally deprived cases. The investigators make recommendations with respect to workers who deal with these infants: they should receive training in the application of the mediator training model, in the preparation of IPPs, and in goal-oriented counselling or counselling related to parent effectiveness.

The purpose of the second study was to examine infants' Bayley scores before and after an infant stimulation program.

The study sample consisted of 348 infants' scores on the Mental Development Index and 322 on the Physical Development Index.

In general, the scores before and after the program tended to be similar. Children with high initial scores tended to improve more on both indexes than children with low initial scores.

There was a considerable difference in scores according to the infants' diagnostic category: the majority of environmentally at risk infants scored in the normal range or above on both indexes and the majority of developmentally disabled infants in the lowest ranges.

In the absence of a control group, only limited data were available to determine the effects of treatment on infants' Bayley change scores. Variables

such as the age of admission to the program, whether or not a treatment plan was completed, and frequency of home visits appeared to have little or no relation to scores.

The investigators conclude that the study confirms the usefulness of the Bayley as a test that identifies overall functioning of infants, and recommend that the policy of using the test to assess infants at intake and termination be continued.

The third study aimed to explain the wide variation among programs in the cost per infant served.

Questionnaires requesting financial and case data information were completed by 30 of the 40 program directors.

The data revealed that salaries, staff travel, and purchased services accounted for about 78% of the average program's costs. Hospitals generally paid higher salaries to full-time staff than other agencies paid. Travel expenditures did not vary much by region.

Many variables associated with program characteristics and staff activities were analysed to determine their impact on costs per case. The most significant factor found was client-staff ratios — the fewer clients served by the more full-time equivalent staff, the higher the costs. Rural or urban location did not affect costs.

The higher salaries paid, coupled with fewer infants served, accounted for three-quarters of the hospitals showing higher costs than most other programs.

The investigators conclude with recommendations for program funding guidelines (e.g., monies should be allocated on the basis of cost-efficient client-staff ratios).

LONG-TERM EFFECTS OF HOME INTERVENTION WITH HIGH RISK INFANTS AND THEIR PARENTS (OMHF)

Maria E. Barrera, Charles E. Cunningham, and *Peter L. Rosenbaum*, Chedoke-McMaster Hospitals

Infants with a low birthweight (less than 2000 grams) are considered to be at increased risk for medical and developmental problems and for caretaking deficiencies. Very little information is available in the area of early intervention and its effectiveness with these infants and their parents. In an attempt to remedy this situation, the present investigators proposed to assess the long-term effects of intervention on children who had participated for a year in either (a) the infant development project, which provided home intervention with

pre-term and full-term infants or (b) the infant-parent program, which offered home treatment to parents of infants who were considered at risk for developmental delay.

The pre-term infants in the infant development project were stratified according to birthweight, socioeconomic status, and sex, and were randomly assigned to one of three groups: a control group, which received home visits for evaluation purposes only; a developmental group, which aimed to maximize the infant's developmental progress; and a parent-infant group, which aimed to improve parent-child interaction. The full-term infants in the project served as a second control group, and were matched by socioeconomic status and sex. The study sample consisted of 59 pre-term and 24 full-term infants. Attrition, particularly of the lowest birthweight pre-term infants (under 1500 grams), almost half of whom dropped out, reduced these numbers to 45 and 22 respectively at the time of the final follow-up.

Children in the infant-parent program had been referred to it by other community agencies. The study sample included 23 infants who had entered the program when they were less than six months old.

All children were assessed one year after intervention ended and when they were 4.5 years old. Among the measures used with them and their parents were the Caldwell HOME Inventory, the Minnesota Child Development Inventory, and the Parenting Stress Index. A videotape was also made of 47 of the mothers and their child in 10 minutes of structured play and in 10 minutes of free play.

Only some of the data that were collected have been analysed so far. Two major analyses carried out were of the children in the infant development project at 4.5 years of age: (a) all four groups, and (b) the three pre-term groups by birthweight.

No significant group differences were revealed on any of the standard developmental measures. Only those measures based on parental reports showed any differences (e.g., as compared with the mothers of children in the control groups, the mothers of children in the treatment groups perceived their children as having better expressive language and personal/social skills). The perceived differences also related to birthweight — the low birthweight children were thought to perform the poorest, particularly those who had had no intervention. In addition, the parents of a low birthweight child reported greater levels of stress than the other parents.

The investigators suggest possible explanations for the discrepancies between the types of measures (e.g., the differential attrition rates of the sample may have biased the results).

THE IDENTIFICATION OF THE "INVULNERABLE" HIGH RISK INFANT (OMHF)

David R. Pederson, Barrie Evans, A.M. Fox, and *G.W. Chance*, University of Western Ontario

Many low birthweight infants appear to be at increased risk for delays in cognitive and social development. In contrast with previous research that attempted to account for this vulnerability by predicting subsequent development on the basis of early risk factors, the present research proposed to identify the constitutional, parental, and community factors that contribute to optimum developmental outcome for these infants.

The study sample consisted of 150 infants with low birthweight (less than 2500 grams) who were treated in a neonatal intensive care unit. The infants were observed at three points during their first year: before discharge from the unit, at seven months of age, and at 12 months (all ages were corrected for prematurity). Data obtained initially included demographic information, medical records of mothers and infants, and assessment of infant visual attentiveness. The mothers were interviewed to determine their social support network, knowledge of early infant development, and concerns about their baby. At the second observation point, in the home, the infants were given a test of visual recognition memory. The mothers were interviewed concerning their social support, stress, and infant. At the third observation point, the infants were administered the Bayley Scales of Infant Development and their visual recognition memory was assessed. The mothers were questioned about their social network. On the basis of the two home visits, the quality of the infants' home environment was assessed (using Caldwell's HOME Inventory). In addition, mother and infant were videotaped in a laboratory setting to assess the quality of their relationship.

Although data analysis is still continuing, the investigators state that the results to date suggest several conclusions:

1. Having a premature infant is very stressful for mothers. Seventy per cent of the mothers of infants who remained well and almost all the mothers of infants who were ill were scored as emotionally upset. Their major concerns were centred on the baby's survival and long-term functioning. The importance for the mothers of emotional support from family members suggests that neonatal intensive care units should encourage visiting by relatives, provide information about the status of the infant, and acknowledge the mother's worries.

2. Most low birthweight infants, including those of very low birthweight (less than 1500 grams), appear to be functioning normally by 12 months of age. Only

nine infants had a clearly identifiable developmental handicap (six were blind and three had cerebral palsy).

3. Differences in how critically ill infants were after birth are strongly related to differences in their intellectual functioning at one year of age. This finding indicates that there is a need for continued monitoring of infants who are very ill after birth.

4. Illness after birth, rather than prematurity per se, is related to developmental functioning at one year.

5. Quality of home environment makes a significant contribution to infant functioning at one year of age. This contribution is more important than such factors as social class or maternal education.

AN OUTCOME EVALUATION OF DIFFERENT INTERVENTION STRATEGIES WITH HIGH RISK PRESCHOOLERS (OMHF)

Susan J. Bradley and *Nira Kolers*, Thistletown Regional Centre for Children and Adolescents

In recent years an increasing emphasis has been placed on early identification and treatment of children with behavioural, emotional, and developmental problems. This emphasis has resulted in the establishment of an increasing number of therapeutic nursery schools, and a concomitant demand for their services. Therapeutic preschools use a combination of methods to treat children who have a mixture of management problems, emotional disorders, and developmental delays. These intensive multifocussed services are very costly, and little research has been carried out to determine their effectiveness. The present study, therefore, sought (a) to provide an objective data base for preschool children referred for treatment, (b) to evaluate the developmental and behavioural progress of children made through intensive and non-intensive treatment programs, and (c) to determine the characteristics of children who are best served by different types of treatment. The focus of the study was the Thistletown Preschool Day Treatment Centre (PSDTC) in Rexdale, which has been operating as a therapeutic nursery school since 1971.

The study sample was made up of children aged three to six years: 63 children in the PSDTC program; a clinical comparison group of 39 children referred to Thistletown or the Hospital for Sick Children who were receiving non-intensive

or no treatment; and a comparison group of 53 normal children from community day care centres. Testing took place one month after PSDTC children began their program, and again eight months later. Attrition reduced the numbers who were retested in each group by about eight. The assessment battery included several measures of developmental and behavioural functioning; teacher ratings of social-emotional functioning; parent ratings of behavioural problems and competencies; and observations of the PSDTC children in the classroom. Parents also completed a questionnaire to provide sociodemographic data, and family and developmental history.

Only part of the data has been analysed so far.

To assess the effectiveness of intervention for children with particular types of problems, the PSDTC group was further divided into three subgroups: 12 children with subnormal non-verbal IQs who were very developmentally delayed and socially withdrawn; 24 children with normal non-verbal IQs who had moderate developmental delays, mostly in language, and were socially withdrawn; and 17 children with behavioural disorders, most often excessive acting out, inattentiveness, and aggressiveness. The findings indicate that the greatest gains were made by the moderately delayed children, especially in the areas of language and communication and of participation and interest in classroom activities. Few gains were made by the very delayed group, despite their having received more types of treatment. The behaviourally disordered children showed little change, regardless of whether they were receiving treatment. Indeed, in comparison with the 24 children from the clinical comparison group who had behavioural problems, the PSDTC children fared no better on any of the measures.

The charts of the PSDTC children were examined in order to assess the motivation of the family. Fifty per cent of the parents of both the very delayed and the moderately delayed children visited the PSDTC to observe their child, and 80% and 50% respectively took part in therapy or counselling with a social worker. In contrast, only 13% of the parents of the behavioural problem children came to observe their child, and only 38% had regular visits with a social worker.

In terms of future preschool planning, the researchers raise two issues. They query whether the amount of input with very delayed children is warranted in light of the small gains made. And they wonder how to deal with the families of behavioural problem children — whether to look for ways of engaging them in the children's treatment or to not maintain them if they do not make an active commitment to treatment.

The researchers are continuing their analysis of the data. They have also completed an additional assessment of the children at discharge, since most children stayed in the PSDTC program for a second year.

Parenting

FATHERS' REACTIONS TO THEIR NEW-BORN INFANTS AND THE BIRTH EXPERIENCE

B.E. Robson, D. Mandel, D. Redmond, and *P. Marton,* C.M. Hincks Treatment Centre

The traditional perspective of the role of the father as supportive to the development of the mother-infant bond has shifted to a view that the father may have a unique and integral role in parenting the infant. In light of this view and to enable a better understanding of the role of fatherhood, the goal of the present project was to determine factors that affect a father's attachment to his child. The researchers examined the hypotheses that the father's presence at the birth, a positive birth experience, and early physical contact with the child all promote this attachment. They also investigated the effect on the attachment of other variables such as the father's personality and the marital relationship.

Seventy-nine first-time fathers completed questionnaires about their demographic background, marital relationship, the birth experience, and environmental stresses and support. They also completed a Minnesota Multiphasic Personality Inventory (MMPI). Questionnaire administration took place at intervals before and up to a year after the child's birth. From the fathers' responses to the questionnaires, the researchers developed scales to assess their attachment.

The study found that the father's presence at the birth of his child and his active participation in it were positive influences on his attachment to the child. Some medical interventions and a subjectively poor birth experience had a negative influence, although time alone with the mother and the infant shortly after appeared to ease the negative effect somewhat.

The study also found positive relationships between the father's attachment to his child and the strength of the marital relationship both prenatally and one year after the child's birth. These findings imply that a strong marriage is not disrupted by the birth of a child and that a marriage at risk continues at risk.

Fathers with a high score on the masculine/feminine scale of the MMPI tended to be emotionally attached to their child both before and a year after the child's birth. The researchers suggest that a high score on this scale, which could be deemed to measure nurturance, is an indicator of prenatal attachment and caretaking behaviour later.

With regard to future research, the investigators consider that the two paternal attachment scales developed for the study have potential for use, although they do require further validation first.

REDUCING THE STRESS OF NEW MOTHERHOOD (OMHF)

Amina Miller, Halton Family Services

The stresses of new motherhood (e.g., fatigue, isolation, changing relationships) can be intensified by lack of preparation for the realities of life with a baby. In view of the increasing body of research linking good parenting with optimal infant development, preventive intervention to reduce family stress would seem to be desirable. The present investigators proposed therefore to examine an innovative approach to meeting new parents' needs for individualized support and information on parenting.

The study sample consisted of 136 first-time mothers contacted in hospital within two days of the birth of their child. Both mother and child had to be in good health to participate. The mothers were randomly assigned to one of four groups: a control group, which was exposed only to the usual hospital and community services (as were all participants); a telephone support group, which received supportive calls seven to 10 days after the birth and three weeks after discharge from the hospital; a parenting skills group, which attended a one-hour class on two consecutive days before discharge; and a group which received both telephone support and the parenting skills classes.

All mothers provided background information and were administered several questionnaires (e.g., the NeoNatal Perception Inventory, the Maternal Competence Scale, the Parental Stress Index) at first contact and when their infant was two and eight months old.

The average mother was revealed to be 29 years old, married, and Caucasian. Seventy per cent had a family income greater than $25,000.

Although there was a trend in the expected direction, analyses of the data indicated that the interventions produced no significant effects on the mothers in terms of reduction in stress or improved parental competence and knowledge. The investigators suggest that the nature of the study sample — middle-class, healthy, and homogeneous — might account for the lack of differences between the groups and that a less homogeneous and more at risk population might derive measurable benefits from intervention.

THE LOW INCOME "SUPER COMPETENT" MOTHER: A STUDY OF 100 PARENTS

Philippe A. Barrette, McMaster University

Children from low income families are frequently considered to be vulnerable

for developmental, behavioural, and emotional problems. In an attempt to determine factors that may help these children function successfully, the present investigator proposed to compare the characteristics of low income mothers whose children appear to escape the harmful effects of poverty with the characteristics of low income mothers whose children do not appear to escape.

The study sample was drawn from 250 low income mothers with children aged five to 16 years, living in a subsidized housing project in Ottawa. On the basis of their children's receiving a high or a low score on a survey of academic performance, skill development, and emotional functioning, mothers were assigned to two groups: super competent mothers (SCM) and other mothers (OM). The 50 SCM whose children scored highest and the 50 OM whose children scored lowest were selected for the study. The completion rate (32 SCM and 31 OM) was greatly affected by difficulties in locating the mothers (e.g., they had a high mobility rate combined with a tendency to change surnames rather frequently), language difficulties, and refusal to participate.

A three-hour interview was held with each mother to obtain information in such areas as demographic background; family experiences; separation history; employment, income, and mobility; social support systems; parenting experience; medical and psychiatric history; and quality of life.

Only preliminary indications can be drawn from the data, which have yet to be computer analysed.

Characteristics that the SCM and OM appeared to share included little or no history of parental public assistance; parental marital separation; a belief in God; marital separation during pregnancy or within the subsequent two years; and an unsatisfactory relationship with the fathers of their children.

In relation to the OM, the SCM tended to be separated less often from their parents before age 18 years; have parents of English Canadian ancestry; be older when they dated, married, or became pregnant; be employed more often; have a higher education; have fewer children; have a shorter history of public assistance; have more contact with their parents; and see themselves as more in control of their life.

AN INVESTIGATION INTO THE USE OF FORMAL AND INFORMAL HELPING RESOURCES BY LOW INCOME FAMILIES

Donna Shoom-Kirsch and *Alan Hall*, The Dellcrest Children's Centre

A persistent problem for agencies offering prevention services in low income neighbourhoods is that parents who might be most likely to need the services

are often the least likely to use them. The present investigators suggested that social network theory might provide an appropriate framework for understanding neighbourhood social patterns, and that this understanding might assist agencies in contacting these hard to reach individuals. The objectives of the study, therefore, were to determine where parents living in low income communities seek help for family-related concerns, and what factors influence those help-seeking patterns.

As the focus of the study, the investigators selected an urban public-housing community of over 1000 residential units, mainly townhouses and apartments. They deemed this neighbourhood representative of a low income area whose residents had underused agency services in the past. In order to reach their desired sample size of 300, they canvassed every housing unit and contacted over 500 of the more than 700 female residents who were English-speaking and had children under 19 years of age living at home. The final sample consisted of 235 women. Interviews of 1.5 to 2.5 hours were carried out with them to provide information on their demographic background, current life problems, parenting attitudes, child-rearing difficulties, and social network characteristics.

Although generalization of findings based on only one low income community is limited, some ideas are presented that might be worth investigating in other communities.

The data confirmed the low income status of the sample (median family income at the time of the study — 1980-81 — $6000 to $8000). On average, the women had lived in the neighbourhood for 5.8 years, and had 2.2 children. Sixty-three per cent were single parents, and 62% were unemployed. The country of birth was Canada for 42% and the West Indies for 42%.

As their major personal concern, 60% of the women cited financial and employment problems, and 17% cited marital relationships. In the area of child-rearing, only 10% reported major difficulties.

The women described their social networks as comprising an average of nine members and being quite ethnically homogeneous. Over half the members of the network were from outside the community, and 85% of them were known for more than two years. In general, the networks provided the women with emotional support, moderated their stress, and seemed to preclude their perceived need for professional help. The women had very little contact with any organizations, the main exceptions being the school and religious organizations.

In light of a number of the women mentioning that they had contact with religious organizations, the investigators suggest that consideration should be given to exploring the role of these organizations as potential collaborators in service delivery.

INTERVENING TO SUPPORT PARENTS IN HIGH RISK COMMUNITIES (OMHF)

Susan Hodgson, The Child in the City, University of Toronto

In communities identified as high risk, the inhabitants face an increased probability of handicapping conditions, disabilities, or dysfunctions. A help for parents in such neighbourhoods might be a community support system that intervened transitionally to increase the parents' self-reliance and thereby reduce their dependency on professional intervention. The present study focussed on one such support system: the Child/Parent Centre of the Jane/Finch Community and Family Centre in Toronto. The Centre provided a relaxed setting and programs for women with young children, and enabled access to other community activities in the same building. The investigation aimed to assess the Centre's effectiveness in accomplishing its objectives of (a) reducing the social isolation of women staying at home with preschoolers, (b) building the women's general and self confidence, and (c) encouraging the women's greater community involvement. One outcome looked for as a measure of effective intervention was a lower incidence of emotional and physical health problems in both parents and children.

Two groups of mothers staying at home with preschool children were the subjects of the study: a Centre group, comprised of women who had been in contact with Centre programs, and a community comparison group, comprised of randomly selected women who had had no contact with the Centre. Initial interviews of three to four hours were conducted with 48 Centre and 104 comparison women. Attrition, caused chiefly by the high mobility characteristic of the area, reduced these numbers to about half for the second interviews a year and a half later. Interviews were conducted also with staff and board members of the Centre. In addition, the day-to-day operations of the Centre were monitored.

Social support was defined in terms of met and unmet core needs and coping needs. Core needs are assumed to be universal and to involve an individual's sense of worth and value. The study showed a relationship between unmet core needs and depression. A demonstrated outcome of Centre support was that the Centre women were less often clinically depressed than the comparison women. They had fewer new cases of depression and their existing cases were possibly shorter-lasting, suggesting that the intervention had both primary and secondary preventive value.

Although the data provided no clear evidence of prevention of physical illness, the investigator considers that the area is worth pursuing because of the potential cost benefits if the need for treatment is avoided.

The data did give some indication that the benefits of contact with the

Centre diffused to others through the community involvements of Centre women.

The implications of two unexpected findings of the research are discussed. First, targeting specific populations (e.g., single parents) may not be an efficient way to reach isolated individuals in need, because isolation appears to be more evenly distributed throughout the community than originally thought. An intervention that attracts those in need, independent of their demographic characteristics, may be more appropriate. Second, having community involvement as an objective for women with young children may have unanticipated disruptive effects on their families. It is important, therefore, to consider what kind of support a woman needs to deal with her own, her family's, and the community's needs.

The evidence that the Child/Parent Centre has had success in implementing its model and achieving its objectives suggests that it can serve as a model for other communities. The evidence of areas in which the Centre can improve its effectiveness (e.g., the later stages of its interventions) alerts both the Centre and others to new clinical and practical issues.

PEOPLE HELPING PARENTS: AN EVALUATION OF A PROGRAM DESIGNED TO REDUCE THE INCIDENCE OF SOCIAL AND EMOTIONAL PROBLEMS AMONGST SOCIALLY ISOLATED PARENTS (OMHF)

S. Mark Pancer and *Bryan Hayday*, The Dellcrest Children's Centre

Social changes in the urban environment — increasing numbers of single parents, high mobility, the growth of high-density low-income areas — have produced many socially isolated individuals who have little contact with family and friends and little involvement with the community. These individuals are considered to be at increased risk for developing physical and emotional disorders. Since the individuals who are in greatest need of support are frequently the least likely to seek help, the present study proposed to investigate the effects of a prevention program that incorporated an outreach approach. Specifically, the study sought to evaluate the People Helping Parents program, operated by the Dellcrest Children's Centre in Toronto. The program, using trained volunteers, aimed to provide emotional support to the socially isolated parents of young children.

Subjects for the study (individuals with no significant contact with family, friends, or neighbours) were recruited slowly by several means, with some being referred by community agencies and others being reached by door-to-door can-

vassing. Each participant was matched with a volunteer, and was randomly assigned to one of two groups — Home Visits or Minimal Intervention. Those in the Home Visit group received weekly visits of two to three hours from their volunteer. Those in the Minimal Intervention group received weekly phone calls, about 45 minutes in length.

Participants were interviewed three times — at acceptance into the program, at the end of the program, and two months later. Measures were used to assess the participants' social support, their knowledge and use of community resources, their reactions to stress, and their behaviour in relation to their health. A total of 32 women took part, with 18 receiving Home Visits and 14 Minimal Intervention. Twenty-six women completed the first two interviews and 16 completed all three.

The 32 women ranged in age from 20 to 42 years and had at least one young child; 18 were born in Canada; 23 had English as their first language; and 27 were married or living common law.

After participation in the program, the 26 women showed evidence of an increase in levels of social support (e.g., they expressed a greater feeling of support-related self-esteem) and indicated that they were more familiar with, and had used, community resources. They also reported experiencing better overall health.

Comparisons were made between 10 women in the Home Visit group and 10 in the Minimal Intervention group who completed the first two interviews. The only difference between the groups was that those in the Home Visit group reported greater changes in their perception of available support for child-rearing.

Although the number of participants was too small for the findings to be conclusive, the investigators consider that People Helping Parents did appear to assist isolated parents by expanding their support networks and linking them with community resources.

ENHANCING PARENTAL COMPETENCIES: A COMPARATIVE EVALUATION OF TWO PREVENTION PROGRAMS FOR HIGH-RISK MOTHERS (OMHF)

Gary Resnick, Howard Greenberg, and *Vincent Caccamo*, Sacred Heart Child and Family Centre

Single mothers living on public assistance may experience environmental stresses that adversely affect their coping and parenting abilities. If the mothers are

unskilful at parenting, their children's mental health may in turn be adversely affected. The present investigators considered that an effective prevention program for these sole-support mothers should not simply teach parenting skills; it should also build their self-esteem and sense of control over their life, and reduce their social isolation. The investigators sought, therefore, to evaluate two programs designed to increase parental competency: a life-skills, esteem-building program and a program combining these elements with direct parent skills training. They predicted that both programs would be effective in improving mothers' coping and parenting competencies, and in reducing their incidence of later emotional disturbance as well as their children's.

Two structured group programs in Scarborough were the focus of the study: Opportunity for Advancement (OFA) and New Directions for Mothers (NDM). The OFA program consisted of modules on esteem-building, goal-setting, and vocational planning. The NDM program included the first two modules and one on parent training in place of the third. Both programs were offered as a course of 14 weekly sessions, with about 12 participants per course.

The initial subjects of the study were 18 sole-support mothers in each of the OFA group, the NDM group, and the control group of volunteers from the community. Each mother had at least one child of preschool age and was between 18 and 45 years old; neither mother nor child had had any previous psychotherapeutic treatment. The combined difficulties of low enrolments and high drop-out rates led to mothers who attended at least seven of the 14 sessions being considered as program completers. Final data were collected for 10 mothers in each experimental group and 13 in the control group, not all of whom had attended even seven of the sessions.

Testing took place between the first and second sessions, after the last session, and a year later. Each hour-and-a-half test period included a structured interview and a videotaping of mother-child interaction. Group leaders completed a summary evaluation of each participant and a weekly process questionnaire.

Mothers in the experimental groups did not show an increase over time in their self-esteem and social supports. In fact, OFA participants' reliance on their families and other social contacts for support appeared to decrease. Although there was an indication that parents' rates of play and talk with their children increased, primary measures of parenting skills — parental control and child compliance behaviours — did not seem to be affected by the interventions. Overall, any changes noted were moderate and short term (over the duration of the program). There were no differences among the groups of mothers or their children with respect to longer-term reduction of emotional disturbance.

The investigators stress the need to continue work in the evaluation of prevention programs. They discuss issues raised by the findings which have implications for existing prevention theory (e.g., an improvement in an indi-

vidual's competency should not be interpreted as prevention unless the incidence of the particular disturbance is reduced in the subject population as a whole).

Community Outreach

EVALUATION OF THE POSITIVE PARENTING PROGRAM

William D. Ratcliffe, Longwoods Research Group Limited, and *William P. Wittman*, W.P. Wittman Limited

The Positive Parenting Program consisted primarily of a series of 30-second animated television commercials aimed at the parents of young children. The messages were designed to foster a more positive emotional family environment for young children, and to teach and remind parents of basic child-rearing skills.

Three commercials portrayed typical child-rearing problems: sibling rivalry, toilet training, and night waking. The intention was to increase parents' understanding of these problems, foster more appropriate performance expectations, and discourage their attributing malevolent intentions to the children. The fourth commercial reminded parents that showing affection to their children is crucial to the children's optimal development.

A test market evaluation of the commercials was undertaken in London during the fall of 1980 and the winter of 1981. Before and during the 19 weeks the commercials were shown, complementary pamphlets were distributed through hospitals, doctors' offices, and supermarkets.

Telephone surveys were conducted before, during, and after the campaign. Interviews of 20 to 30 minutes were held with three separate samples of 300 randomly selected mothers who were English-speaking, aged 18 to 34 years, had one or more children aged five years or less, and had access to a television.

The findings indicate that awareness of the commercials increased steadily during the campaign, from 10% of those surveyed, to 39%, to 55%. Awareness of the pamphlets also increased, from 19% to 36%.

Changes in the desired direction were indicated in eight of nine parenting beliefs (e.g., 80% of the mothers in the first survey and 90% in the third strongly disagreed with, "You will spoil a child if you give him/her a lot of affection"). In addition, 59 mothers (21% of the viewers of the campaign) reported they had changed the way they dealt with their child as a result of seeing the commercials.

When asked to indicate what they found most difficult about dealing with

their young child, 747 of the 900 mothers (83%) reported some form of disciplinary problem.

In February 1982, a four-week modified campaign was begun province-wide. Based on the test market findings, a new commercial on discipline was included. It aimed to increase parents' understanding of children's behaviour. Only this commercial and the affection one were aired.

At the end of the four weeks, 306 mothers in seven urban centres throughout Ontario were surveyed. Results similar to those from the test market were found.

During the London campaign, MCSS received 453 requests for further information, and during the province-wide campaign 1323 requests.

Although far from conclusive, the evaluation findings hold promise that mass media intervention might be effective in changing attitudes. The evaluators identify areas for further research (e.g., the extent to which the messages were received and acted upon by those with the greatest needs).

EVALUATION OF THE MONTROSE INFANT CARE CENTRE

Frederic Weizmann, York University, and *Martha Friendly* and *Gail Gonda*, The Child in the City, University of Toronto

The Montrose Infant Care Centre was established in an inner-city area by the Toronto Board of Education to supply day care and instruction in child care and development for teenage mothers while they attended school. Montrose's objectives were to provide the infants with a stable environment and encourage their optimal development, and to enable the mothers to (a) complete their education to the same level they could if they were not mothers, (b) acquire parenting knowledge and skills, and skills central to being a provider for a child, (c) reduce their rate of further pregnancy during participation in the project, and (d) increase their self-confidence and self-esteem, and develop necessary social service and personal supports.

Montrose assisted the mothers with school and work-related problems, and used group meetings and informal contacts to teach parenting skills. Day care professionals looked after the infants.

The first phase of the evaluation, in May 1982, gathered mainly descriptive data (e.g., sociodemographic information, child care knowledge). The second phase, in May 1983, included structured interviews/questionnaires for the mothers, developmental tests for the infants, and measures of mother-infant interaction. For comparison purposes, four other groups of teenagers were also

examined: (a) non-mothers of similar age and academic program from some of the schools attended by the Montrose participants, (b) mothers using day care facilities at two maternity homes, Humewood House and Victor Home, (c) mothers caring for their child at home, and (d) mothers using other child care arrangements (e.g., babysitters, group care).

The evaluators mention some limitations of the study which restrict its generalizability and usefulness: the sample, which contained very few teenage mothers under age 17, was not necessarily representative; the follow-up periods to assess the infants' development and the mothers' educational and occupational futures were not sufficiently long.

Data for the first phase showed relatively few differences among the groups being studied. Almost half of the 97 mothers lived with their own mother. From 26% to 45% of the fathers, depending on the group, provided regular financial support, and a majority had contact with their child.

At the time of follow-up a year later, 17 of 61 mothers still lived with their own mother. For about 70% of the young mothers, their primary means of financial support was public assistance.

With respect to education, 16 of 19 mothers at Montrose, 11 of 12 at Victor Home, eight of 10 at Humewood House, five of 11 caring for their child at home, and five of nine with other day care arrangements continued to be in school or planned to return. Of these numbers, four from Montrose and one from Victor had continued to community college.

In terms of infant development, scores for the 54 infants from all groups were within the normal range, and there were no significant declines since the initial testing.

The evaluators recommend that further research, including a comprehensive needs assessment, be carried out in the area of teenage motherhood to provide more substantial information than is currently available.

EVALUATION OF PROJECT STAY HEALTHY EARLY

Alan G. Worthington, Trent University

Project Stay Healthy Early in Peterborough was intended to co-ordinate community services for pregnant, single females aged 16 to 19 years and to encourage these first-time mothers to take full advantage of available supports. It was intended to teach the teenagers good pre-natal health practices, parenting skills, and nutrition for mother and child. The resources of community agencies with expertise in these areas (e.g., the Childbirth Association, the La Leche

League) were used. Referrals to the program were to be from local physicians, in the first trimester of the teenager's pregnancy.

The project ran from late 1980 to the end of May 1982, when it was terminated early for lack of participants. Even broadening its terms to include some married females and those aged 20 had not helped. The planned evaluation using an experimental and control group design was therefore not possible.

The evaluator points out how important the project co-ordinator's role appeared during the time the program functioned. As well, he recommends that, in planning any future projects, the demographics be carefully analysed to ensure a sufficient number of participants, and effort be expended on public relations within the community to ensure the involvement of agencies and individuals whose co-operation is essential for the project's success.

EVALUATION OF THE RESEAU PARENTS NETWORK PROJECT

Arthur Stinson, Carleton University, and *Lise Lavoie*

The Reseau Parents Network (RPN) project in Ottawa was co-sponsored by three organizations: a central agency (the Parent Preschool Resource Centre) and two community service centres (Pinecrest-Queensway and Basse-Ville). The aim of RPN was to begin to develop a community-wide network of neighbourhood-based support programs for low income parents. The intent was to strengthen the ability of parents to deal with stress, enhance parent-child relationships, improve parents' self-image, and encourage better use of community resources. A further goal was to develop a model for relationships between a central agency and community resource centres.

The RPN comprised five neighbourhood drop-in programs: four at Pinecrest-Queensway, located in or adjacent to rent-geared-to-income housing and directed at anglophone families; and one at Basse-Ville, in a selected central locale, directed at francophone families.

Evaluation of the RPN project took place from October 1980 to March 1983. The evaluators mention the difficulties involved in evaluation when goals and philosophy change during the evaluation period, as occurred with RPN and particularly with Basse-Ville. As well, since the three sponsoring organizations gradually decentralized all functions, only the parent support goals could be evaluated. The evaluators considered the central question of the evaluation to be, Do prevention programs work in high risk situations?

Assessments were made by means of a parent interview/questionnaire administered up to five times (depending on how long parents were in the pro-

gram); staff diaries; participant observation during the first six months of each program; and case studies and program documents. In total, 407 interviews were carried out, with 99 parents being interviewed twice or more.

The evaluators provide detailed descriptions of the background and operations of the programs, interspersed with case studies. In general, the Pinecrest-Queensway programs seemed to be attracting and involving their intended population of low income, sole-support mothers. The Basse-Ville program appeared to be attracting a more middle-class group, and attendance at the program tended to be low and sporadic.

Participants rated the programs highly: 173 of 187 (97%) said they would recommend the program to others, and 121 (70%) said it had improved relationships with their children.

On the basis of their observations, the evaluators conclude that Pinecrest-Queensway succeeded as a prevention program and Basse-Ville did not. Although analysis of two participant variables — self-esteem and stress as a homemaker — showed no significant changes over time, the evaluators emphasize that they still believe in the success of Pinecrest-Queensway. They argue, for example, that the fact that no deterioration had taken place — given the degree of stress under which the parents operated — could be interpreted as prevention.

In conclusion, they recommend lessons to be learned from the project (e.g., the chances of success of a prevention project improve according to the degree of community development preceding its introduction; programs should be established as close as possible to the intended population rather than at a central locale).

EVALUATION OF THE NORTH EAST NEIGHBOURHOODS CENTRE

Richard Volpe, The Institute of Child Studies, University of Toronto

The North East Neighbourhoods Centre (NNC) was set up in North York by Adventure Place, a children's mental health centre, to serve young children, parents, and education and social service professionals living or working in the area. The goals of the NNC were to enhance the quality of parent-child interaction and their sense of agency and competency; to increase teacher competencies and the quality of learning experiences for children; to facilitate the development of support networks among community residents; and to improve the community's ability to serve itself.

NNC services consisted of four types: (a) a home visitor program, to provide support, parent education, and linkage to other community services; (b) parent-child drop-in centres, to encourage parent interaction and child stimulation; (c) a classroom consultant program, to assist teachers, principals, and day care supervisors; and (d) educational and professional development activities for local agency staff and parents. Program staff were mental health care professionals and two teachers sponsored by the local boards of education.

Evaluation of the NNC took place from September 1981 to January 1983, and centred primarily on the program users. Among the techniques used for the evaluation were participant observation, interviews, standardized scales, and client ratings.

The typical parent user — as elicited from the samples of 20 and 40 mothers in the home visitor and drop-in programs respectively — was married, English-speaking, and middle class.

From the approximately 30 families visited per week in the home visitor program, the 20 mothers who were visited for at least six months were selected as the study sample. Their ratings of the program were positive initially and remained so. The results of the testing, however, did not support any definite conclusions about program effectiveness in terms of changes in the parents' and children's attitudes and behaviour.

Parents in attendance at the two drop-in centres were surveyed three times (60, 40, and 67 mothers per time) to elicit background data and satisfaction with the program. Despite having to make an appointment to use the centres, the parents generally considered the program to be excellent and stimulating for their children and themselves.

The consultation program was available in seven primary schools and three day care/nursery centres. All 28 teachers in the program were interviewed about a year apart. Both they and the three consultants completed questionnaires to assess the usefulness, and give their impressions, of the consultation. Although the teachers were uniformly unclear about the goals of the consultation, the program apppears to have reduced their need for assistance. The consultants perceived the program to be most useful in helping teachers to communicate better with parents and to identify children requiring special attention.

For assessment of the development activities program, local service agencies and participating parents were surveyed for their views and ratings. In general, agency staff stated that the program was a welcome addition to the community, and 74 of 90 staff who had taken part in workshops rated them as good to excellent.

In conclusion, the evaluator makes several recommendations for NNC's future functioning (e.g., that it be modified to reach more traditionally defined high risk families as well as the middle-class families it has been reaching).

EVALUATION OF THE CHILD CARE NETWORKS PROJECT

Penny Lawler, The Lawler/Dean Partnership

The Child Care Networks (CCN) project, based in northwest suburban Metropolitan Toronto, was an exploratory effort to increase the child care support available to parents at the local neighbourhood level. After findings from CCN's three-month pilot phase revealed that very few natural networks existed in the neighbourhoods, the project centred on the development of such networks by creating ties between parents.

Six neighbourhoods were selected for the project, four as intervention areas and two for comparison purposes. Although the neighbourhoods differed somewhat, they were characterized mainly by working, low income, English-speaking parents with preschool children; low residential mobility rates relative to other local neighbourhoods; and low levels of services for parents and children.

Four CCN workers undertook numerous outreach activities (e.g., visiting residences, being present in common areas of high-rise apartment buildings) to establish contact with parents and generally make themselves known in the neighbourhoods. Through these activities and by tracing links between people, they recruited, over a period of five months, a basic study sample of 74 parents in the four neighbourhoods. Fifty-five of these parents completed structured interviews 10 to 14 months apart. The comparison group, from the other two neighbourhoods, consisted of 40 parents, 25 of whom completed interviews six to nine months apart. The interviews assessed parents' need for child care and parent support, the characteristics of parent-centred networks, and parents' psychological well-being. Details of CCN workers' activities were collected through their journals and report forms on each parent contact. The development of neighbourhood networks was traced through workers' diagrams of relationships among parents before and after CCN intervention.

On average, participants were female, 29 years old, and had two children. Thirty-four per cent were single parents, and 58% were born outside Canada. Based on a stress scale of 13 items (e.g., serious health problems, unemployment), 42% of the participants were experiencing medium stress (three to five items) and 25% high stress (six to 10 items).

The evaluator cautions that interpretation of the findings is limited by the high rates of refusal to participate and the different interview intervals for participant and comparison groups. She suggests that the evaluation of CCN should be seen more as a feasibility study than as an outcome evaluation.

In sum, the CCN project appears to have developed networks in three of the four neighbourhoods, although, rather than being just child care networks, they were a mixture of child care, social, and project activity links among local

parents and caregivers.

The evaluator considers that the next major issues for CCN are to determine what functions the networks can perform, what role CCN workers should play in the networks, and whether or not CCN's effectiveness can be strengthened through work with the networks.

EVALUATION OF THE WESTVIEW COMMUNITY VENTURE

Paul Craven, York University

The Westview Community Venture (WCV) project, established in 1978, was centred on Firgrove Public School in the Jane-Finch area of Metropolitan Toronto. WCV's objectives were to provide services to (a) encourage community and parental involvement in programs provided at the school, (b) develop nutrition, health, and recreation programs for children enrolled in the school, (c) co-ordinate social services required by the children and their families, and (d) assist in developing programs operated by the school to meet children's needs.

The evaluator examined WCV from March to July 1981, and presents an impressionistic look at its development, programs, and influence in the community.

For his examination, the evaluator reviewed WCV files and minute books; interviewed WCV staff, community residents, local service agency personnel, and North York Board of Education officials and staff; and attended an event organized by WCV (the Intercomm orientation for new principals and vice-principals in area schools).

From the more narrowly focussed activities of its first year, WCV expanded its base to encompass the whole Jane-Finch area, and placed increasing emphasis on a broad array of community support services. For example, WCV set up its nutrition program in a second school; played a principal role in organizing a community legal clinic; worked with three existing parent groups and organized new ones at three more schools; and supplied child care for a variety of programs so that mothers could participate.

The central part of the examination focusses on WCV's role with respect to three action components: direct service (initiating and maintaining direct services to the community), animation (assisting the community to formulate new projects which become increasingly self-directing and autonomous from WCV), and support (to individuals, groups, and projects involved in community action and, particularly, to leadership development within the community).

The evaluator considers that WCV has achieved an organizational break-

through with potential for positive change by concentrating the thrust of its activities on the relationship between the community and its schools. He quotes one educator as saying that, in the Jane-Finch area, the schools are "the only permanent strong institutions with a long-term investment in the community and its children."

In conclusion, the evaluator makes numerous recommendations for WCV's future in terms of funding, staffing, development, priorities, and evaluation.

EVALUATION OF THE SUDBURY PRIMARY PREVENTION PROJECT

John Lewko and *Walter Schwager*, Laurentian University

The Sudbury Primary Prevention Project was addressed to three cultural groups in four geographical areas. The project's parenting programs were directed at an anglophone group in Elliot Lake and in Manitoulin Island, a francophone group in Elliot Lake, and a native peoples group near Espanola. The youth programs were directed at an anglophone group in Massey and in Manitoulin Island, and a native group in Manitoulin Island and near Espanola. The aims of the project were (a) to increase the coping skills of young parents, (b) to provide structures for leisure activities for youth and improve coping skills for high risk teens, and (c) to overcome community resistance, develop a community support base, and reduce social stress in the community.

The evaluation of the project covers the period April 1981 to April 1983. Personnel difficulties in three of the youth programs resulted in only the Massey program being evaluated.

Three of the parenting programs were versions of STEP (Systematic Training for Effective Parenting) modified for the particular group. The fourth program, for native peoples, consisted of workshops using culturally appropriate materials developed by staff. The youth program, based on a drop-in format, included group discussion, town clean-up, community health day, and recreational activities.

Assessment for the three parent groups in Elliot Lake and Manitoulin Island included completion of a checklist to measure the quality of parent-child interaction and written responses to vignettes posing hypothetical situations. Posttests, a number of weeks later, involved the same items plus a client satisfaction questionnaire. Where possible, small control groups were used, as were reports from spouses. Assessment for the native peoples' group consisted only of participants' ratings of satisfaction.

For 70 anglophone parents in Elliot Lake, the data indicated improvement in most of the interaction areas (e.g., parents began to respond to a problem with their child by having a discussion rather than by scolding or punishing). These findings were supported by the spouses' reports. Data for 20 parents in Manitoulin Island and 42 francophone parents in Elliot Lake also suggested that positive changes in parent-child interaction occurred. Most of the 80 native parents reported that, in general, the workshop attended was informative, met their needs as a parent, and improved their understanding of the topic covered.

Assessment for the youth program consisted of staff ratings of participants' social skills, and surveys of community leaders and parents (usually the mother) for their perceptions of the program. Of 61 youths who participated, 21 were rated at entry, 24 after eight months, and 17 after 14 months. Some improvements in the youths' social skills appear to have occurred. The evaluators point out that the lack of a comparison group makes it difficult to attribute any change to the program alone rather than to, say, maturation. Nonetheless, parents and community leaders both tended to perceive the program positively.

Overall, the evaluators see the project as having been effective. They mention, for example, several spin-offs from the native peoples' parenting program, including other native communities and associated groups requesting that the materials developed be made available to their resource people.

EVALUATION OF THE HIGHLAND-STIRLING NEIGHBOURHOOD PROJECT

Alan M. Cohen, Canadian Social Analysts Limited, and *R. Jay Turner and Associates*, University of Western Ontario

The Highland-Stirling Neighbourhood Project in Kitchener was set up to develop, organize, and support community-based programs in a socially disadvantaged neighbourhood (i.e., one characterized by high rates of residential mobility, single-parent families, and individuals with low levels of education and socioeconomic status). By encouraging residents' involvement in these programs, the project aimed to enhance existing support networks and to create new ones through a self-help approach. Specifically, the project sought (a) to strengthen the collective capabilities of the neighbourhood in problem-solving and decision-making and to increase health-promoting forces in the neighbourhood and (b) to increase the interpersonal skills and social competence of pre-adolescents and adolescents.

The project's direct service programs were primarily educational, and included parenting education, school consultation, leadership training, and individual support. The project also provided services geared to enabling potential leaders and volunteers to develop other programs (e.g., a neighbourhood association, preschool child care, recreational programs for children, youth, and adults).

Data for the project evaluation were collected from winter 1981 through summer 1982. Given the small numbers of participants in most individual programs, participants in all programs were combined and looked at as a whole. The evaluation focussed on determining whether or not a community development project could have an impact on participants' experience of social support and, ultimately, their psychological well-being.

Demographic data on program participants were collected by program staff. Census data were checked for community comparisons. Participants completed questionnaires at three intervals over 18 months to measure changes in depression, general psychological distress, social support, self-esteem, and sense of mastery, and to rate their satisfaction with the programs. The findings are based on data from the first questionnaire (completed by 183 adolescents and adults) and the last (completed by 170).

The evaluators consider that the sample was an appropriate one for an intervention program: 83% were women; 25% were employed full time and 20% part time; 30% were the primary wage earner in the family; and 20% had family incomes of less than $10,000. Although, in relation to the community in general, the participants tended to be better educated and more likely married, their rates of depression were higher than would be expected for a general population sample.

Changes in participant well-being measured over time showed an increase in sense of mastery and a decrease in general psychological distress. Increases in levels of perceived social support and self-esteem, and a decrease in levels of depression, were also suggested. Although these changes could not be decisively attributed to program involvement, the evaluators discuss reasons for suggesting that they could be.

With respect to the satisfaction of the participants, their attitudes before and after involvement were generally favourable towards the project and its goals. Most of the participants agreed that the programs made the community a better place in which to live and that some of the programs were helpful with real problems.

The evaluators conclude that primary prevention projects such as Highland-Stirling will be well received in the community and may well have some positive impact on participants in them.

EVALUATION OF THE CARIBBEAN OUTREACH PROGRAM

Michael Efran, Consulting Services

The Caribbean Outreach Program (COP), sponsored and co-directed by the Jamaican Canadian Association, was established to serve Caribbeans in the Jane-Finch area in Metropolitan Toronto. The basic program idea was that the needs of the neighbourhood's Caribbeans could best be served by programs created and staffed by other Caribbeans. The goals of COP were (a) to provide parenting support, reduce the isolation of immigrant parents, and develop self-help groups; (b) to develop links between family and school, and provide education about the school system and parent-child relationships in Canada; (c) to offer upgrading classes for immigrant children; and (d) to establish links between the West Indian community and other ethnic groups for mutual understanding and sense of community.

Services were provided through four main programs: (a) direct services, which included crisis intervention, counselling, and job search assistance; (b) a parent course called Family Life Education; (c) youth groups; and (d) an in-school upgrading course for Grade 5 and 6 students.

The evaluation of COP was carried out over 21 months to February 1983. Staff records provided information on the services used and the people using them. Additional demographic data and participants' ratings of the programs were collected through structured interviews. Questionnaires were used to assess parenting knowledge, behavioural changes, and school attitudes. Students in the upgrading course were administered achievement tests, and their teachers rated the course's value. The evaluator points out that changes to COP, its loose structure, and the low numbers of people served made it a difficult program to evaluate.

COP appeared to be reaching its intended population: almost all participants were born in the Caribbean, almost half were single parents, and only about a quarter were employed full time.

An on-going program difficulty was attracting and retaining participants. On average, only four new persons per week contacted the direct services and returned less than twice over the next six months. During the evaluation period, 12 eight-week Family Life courses were held: about 160 persons attended at least one meeting of a course, and 81 attended four or more. Total attendance for the four weekly youth groups was 84 preteens and 67 teens. For the upgrading course, 45 students in three schools enrolled in 1981-82, and 60 in four schools in 1982-83.

Participants rated COP services well: after six weeks of service, almost all of 73 people stated that they were very or somewhat pleased; after six months,

almost all of 45 stated the same.

Teachers were mixed in rating the upgrading course: about a third thought it had been of value, a quarter thought it had not, and the rest were unsure.

In terms of the outcome measures, academic achievement and self-esteem appeared to improve for students in the upgrading course, as did health information for Family Life participants.

The evaluator concludes that the COP evaluation period is best considered in the light of program development. He suggests that tightening the program structure and upgrading the professional and managerial skills of its staff are necessary conditions for improving the program's reach and benefits.

Developmental Handicaps

THE SANFILIPPO SYNDROME: IMPROVEMENTS IN DIAGNOSIS AND PREVENTION (OMHF)

Bruce A. Gordon and *M. Daria Haust*, The Children's Psychiatric Research Institute

The Sanfilippo syndrome (SS) is a metabolic inherited disease. The most reliable estimate of its incidence is that reported for the Netherlands: one in every 24,000 births. Generally, SS appears first as hyperkinetic behaviour and/or retarded mental development when the child is between two to six years old, and progresses to severe mental retardation, physical degeneration, and a need for intensive care. Four variant forms of SS — designated A, B, C, and D — have been determined, each stemming from a different enzyme deficiency. The type A form has been identified as being the most prevalent (about 68% of cases) and having the more severe manifestations. Children affected by SS are diagnosed either late or not at all. A technique for reliable diagnosis of the various types of SS would permit identification of afflicted children, enable the true incidence of SS to be ascertained, and allow genetic counselling for its carriers. The goals of the present research were to provide two procedures, one for an early and complete identification of SS sufferers and one for screening carriers of all its forms, and to establish whether or not carriers have any ultrastructural tissue changes. In an extension of the research, a further goal was to generate an antibody to the enzyme identified as lacking in type A patients.

Over the 15 years to 1981, the researchers were involved in the diagnosis of 18 SS patients (seven of whom are now deceased) from 12 families in the London area. They also took part in the diagnosis of another 10 patients from through-

out the province. For the biochemical analyses that constituted the bulk of this study, urine samples were available from all 28 patients, skin tissues from 18, and tissues taken at autopsy from six.

The details and outcomes of the analyses performed are described in reports by the researchers, who appear to have made a substantial contribution to accurate diagnosis of SS and the differentiation of its variants.

The reseachers' attempt to develop an antibody to the enzyme lacking in type A patients was hindered when the assay procedure proved to be limited. They are currently directing their efforts towards increasing the assay's efficacy.

Mental Health

ONTARIO CHILD HEALTH STUDY

D.R. Offord, Chedoke-McMaster Hospitals

Surveys of childhood disorders can serve at least two purposes. First, they can help to identify the individuals and populations with the greatest risk of impairment, so that health and social service resources can be allocated appropriately. Second, they can be used to assess the factors and mechanisms associated with impairment that can furnish the basis for developing primary prevention and other intervention programs. The Ontario Child Health Study, a province-wide survey of the psychiatric health of children aged four to 16 years, was conducted with these purposes in mind, to aid MCSS in its efforts to provide effective prevention and treatment programs for emotionally disturbed children and their families.

Information was collected on four frequently occurring types of psychiatric disturbance: (a) conduct disorder — children exhibit aggressive behaviour, or chronically break rules; (b) hyperactivity — children are inattentive, restless, impulsive; (c) neurosis — children are unhappy, compulsive, tense, and worry a lot; (d) somatization — children perceive themselves as generally sick and have recurrent symptoms with no evident physical cause. Data were also obtained on the children's physical health, their use of cigarettes, drugs, and alcohol, their living and family circumstances, and their use of mental health and social services, ambulatory medical care, and special education services.

In order to ensure that there was a representative sample of children in the province, Statistics Canada selected a stratified random sample of households from the 1981 census file. Ninety-one per cent of these households — an exceptionally high rate — agreed to participate in the study, yielding a total of

3294 children between the ages of four and 16 years.

Interviews and self-report forms were used to collect information from parents and teachers and from the 12- to 16-year-old children themselves.

The findings indicate that 18.1% of the children had one disorder or more. Conduct disorder was most frequent among adolescent boys (7.4%), hyperactivity among younger boys (10.1%), and neurosis and somatization among teenage girls (13.6% and 10.7% respectively). An unexpectedly high prevalence of neurosis was seen among young boys (10.2%).

Children in urban areas tended to have a disorder more than children in rural areas, although this difference was not statistically significant. Environmental factors appearing to be most strongly associated with disorder were having a family that was functioning poorly, being on welfare, and living in subsidized housing.

Although children with a disorder were four times more likely than non-disordered children to have used a specialized mental health or social service in the previous six months, only one in six disordered children had done so in the same period. Since over half the children had visited a medical doctor in this period and virtually all the children were in school, the investigators suggest that medical and educational personnel should be involved, in addition to mental health personnel, in the delivery of mental health services for children.

The investigators conclude that the survey results, by pointing out the high prevalence of psychiatric disorders in children and the difficulty in ever providing effective treatment on a case-by-case basis, support an emphasis on primary prevention. They consider that a major goal should be to develop programs for groups of children on a school-wide or community-wide basis to reduce the incidence (i.e., the number of new cases) of these disorders.

INTERVENTION EVALUATION STUDIES

Overview

In children's services, a concerted effort to describe the child in terms of his or her special needs has emphasized the lack of knowledge regarding the relationships between the child's presenting needs or characteristics and the most effective form of intervention. The guidelines for grant proposals stressed the evaluation of research with this focus, as well as of research directed at approaches for shifting resources towards alternatives to residential care. The guidelines also emphasized that the usefulness of these intervention evaluations is enhanced when

the relationship between costs and outcomes is analysed to determine whether or not objectives are being met as effectively and economically as possible.

Many of the studies summarized here were carried out successfully, as evidenced for example by the Richmond Cerebral Palsy Center Award given to one of the reports emanating from the work of Dr. David Kenny. Some of the other studies illustrate key factors that, if not suitably dealt with, can hamper research (e.g., examination of feasibility issues before proceeding with what seems to be a good idea; location and retention of a sufficient number of subjects; obtaining of support from the community involved). Nonetheless, even from studies that do not proceed as planned, the researchers can learn a great deal that will aid future work.

The 20 studies in this section are divided into six topic areas: mental health, developmental handicaps, physical disabilities, cognitive development, child welfare, and juvenile corrections and detention. Some studies relating to both primary prevention and intervention evaluation are included in the former section.

Mental Health

ANALYSIS OF AN EXPERIMENTAL PROGRAM FOR AUTISTIC CHILDREN — PARENTAL AND PROGRAM CONSIDERATIONS

Carolyn Lennox and *Martha R. Leary*, The Geneva Centre for Autism, Communication and Language Disorders

Behaviour analysis (in which behaviour is changed by regulating the setting in which rewards and punishments are handed out and the rewards and punishments are controlled) has been successfully used in designing treatment programs for autistic children. However, these children do not readily generalize skills learned in residential treatment to the home environment. Recent research has demonstrated that the children's skill generalization can be improved if their parents are trained in behaviour therapy techniques. Since its inception in 1974, the Geneva Centre for Autism, Communication and Language Disorders in Toronto has emphasized parental involvement in teaching autistic children. Prior to 1977, the Centre's residential Summer School (SS) program and home and school consultation Follow-Up (FU) program focussed on teaching specific skills to parents so they could teach the child. In 1977, the Changing Family Behaviour (CFB) program was instituted to teach parents to understand and generalize the skills they were learning. In 1978, the Planning Lan-

guage Change (PLC) course was devised to enable parents to participate in their child's language development. The present study sought to determine the success of the Centre's programs, particularly the CFB program, by identifying the families who had benefitted from them and the reasons why.

Of the 71 sets of parents involved in Centre programs between 1974 and 1979, 69 participated in the study. One parent from each set completed a questionnaire to provide demographic information and details on the child's background; to rate the usefulness of, and their satisfaction with, the Centre's programs in a variety of areas (e.g., child improvement, parental knowledge and understanding of autism and of behavioural techniques); to explicate their goals and expectations, and their use and grasp of behaviour management techniques; and to suggest improvements in the Centre's service. The researchers met with the parents to complete the ratings sections of the questionnaire.

In relation to the concept of an ideal service, the majority of parents rated the SS, FU, and CFB programs high in terms of usefulness and satisfaction, both in the short and long term. They rated their satisfaction with the PLC course as high, but were mixed in their ratings of its usefulness. Parent training contributed to the value of follow-up — whether or not parents had taken CFB affected how well they rated FU, especially in the goal areas of "parent understanding and implementation of principles" and "attitudes".

Parents indicated that different Centre programs met different needs. For example, CFB and FU best taught parents about what maintains behaviour in their child and how to design and implement programs. CFB also taught parents about targeting behaviours for change and about autism. CFB, SS, and FU together were rated highly for improving child behaviours and for improving parental attitudes and confidence. CFB was most helpful in the area of family life.

With respect to behaviour management techniques, parents who had taken CFB were more likely to continue using Centre techniques than were the others. Those who attended the program in later years used more behavioural consequence, social reinforcement, and extinction techniques than did those who attended in earlier years.

In terms of improvements in Centre programs, parents' suggestions were primarily for greater availability of similar programming.

The fact that parents did not rate the services for the child alone (SS) as highly as those for parents (FU and CFB) emphasizes the important role of parent training and follow-up. The CFB program, by providing information on the theory and practice of behaviour management, appears to have added a helpful dimension to the Centre's services.

ASSESSING STRESS, DIFFERENTIAL INVOLVEMENT, AND INTERVENTION IN FAMILIES OF AUTISTIC CHILDREN (OMHF)

M. Mary Konstantareas and *Soula Homatidis*, Clarke Institute of Psychiatry

Stress in families with an autistic child is a poorly understood matter. A related area requiring systematic examination is the observation that the mother tends to be the parent most involved in an autistic child's care. The present investigators proposed to address these issues, by assessing the extent of stress on parents of autistic children and examining the levels of parental involvement in the care of the child. In an extension of the research, the investigators proposed also to assess the extent of stress on the parents of learning disabled children, the parents of mentally retarded children, and the siblings of autistic children.

As of June 1985, study subjects assessed included 49 families with autistic children; 29 normal control families (matched as closely as possible for socioeconomic status, mother's working status, family size, number and spacing of siblings, and birth order, chronological age, and sex of the child); 36 families with learning disabled children; and 20 siblings of autistic children, along with 20 matched controls. The reluctance of parents of mentally retarded children to participate resulted in only 21 of these families being included.

All parents were interviewed and assessed in up to four sessions. Parents rated their perceived stress on a relevant scale (e.g., the Childhood Autism Rating Scale, the Child Behavior Checklist). Data on parental involvement with the child were gathered by means of parents' log-keeping at home and by direct behavioural observation. The latter took place both in a semi-structured context (three 15-minute videotapes were made — one of parents and child, one of mother and child, and one of father and child) and in an unstructured context (during a psychiatric interview).

Since the work is still in progress, only preliminary findings are presented. The results suggest that, for the autistic sample, mothers and fathers were equally stressed and experienced more stress in rearing their children than did the control parents. The mothers of the autistic children were more involved with them than were the fathers, especially in terms of chore-type activities (e.g., dressing, feeding). The mothers were also more likely than the fathers to provide information about the children, to interact more with them, and to be more aware and realistic about the severity of their problems.

With respect to the learning disabled sample, the mothers were more stressed than the fathers, and the mothers of boys reported more stress than did the mothers of girls.

The investigators state that there now appears to be little doubt that moth-

ers in general seem to bear the heavier load in managing a dysfunctional child. The study findings, if confirmed by further research, underline the need for support for families of dysfunctional children and for help at home for the mothers.

MONITORING AND IMPROVING SERVICES MATCHED TO THE NEEDS OF EMOTIONALLY DISTURBED MENTALLY HANDICAPPED ADOLESCENTS

Susan Mackle, J.D. Griffin Adolescent Centre (formerly, North York Centre for Youth Services), and *William Eull*, The Dellcrest Children's Centre

The demonstrated need for services for adolescents with the dual handicap of emotional disturbance and mental retardation led to the formation of the Treatment for Youth and Resource Opportunities (TYRO) Program. This program was designed to provide these youth with a continuum of co-ordinated community-based services through four agencies in the Toronto area. The dearth of literature and guidelines on the subject of emotionally disturbed and mentally retarded adolescents, and the lack of established methods for delivering effective services to them, prompted the present study. Its overall goal was to provide, through evaluation of the TYRO program, basic knowledge about the clinical characteristics and mental health needs of these adolescents. The study also sought to begin the process of identifying the client, worker, program, and situational characteristics that promote the goals of social and vocational independence for them.

The major conceptual framework for the evaluation was the Program Development Model, devised by Flavell and Butterfield. In this model, each individual serves as his/her own control, and is assessed using instruments that have empirically generated items that may be related to the individual's own life situation.

One hundred and four adolescents were referred to TYRO in the period November 1979 to August 1980. They formed the two study groups: a group of the 46 selected for in-service treatment, and a comparison group of the rest. The assessment instruments used were the Basic Life Skills Scale, the Achenbach Child Behavior Profile, the Conners Teacher Checklist, and the Conners Parent Checklist. In addition, record sheets of service type and duration and of treatment and service goals were examined. Assessment took place prior to, during, after, and four months after service.

All adolescents referred to TYRO showed developmental lags and higher than average levels of emotional disturbance in all areas of the Achenbach Pro-

file except delinquency. Those in the in-service treatment group showed levels of developmental lag similar to the total referral group, and more frequent and severe behavioural problems. These findings suggest that TYRO was reaching its intended group of emotionally disturbed and mentally handicapped youth.

Reassessments indicated no measurable change in levels of emotional disturbance. Developmental lags appeared to decrease somewhat in community, social, vocational, and academic skills for males and in social and domestic skills for females. Males showed some improvement in their level of independent functioning, and females showed less improvement than males.

During the four months of the study, 85% of the service goals for individuals (e.g., to find an appropriate school program) were attained, compared with only 9% of the treatment goals (e.g., to reduce aggressive and destructive behaviours).

The investigators stress the preliminary nature and the limitations of the findings, given the brief duration of the study. However, they point out that the study provides the first baseline information on emotionally disturbed and mentally retarded adolescents and suggest that more information must be gathered on their clinical characteristics and mental health needs. The investigators make recommendations for further evaluation and research (e.g., modifications to the assessment instruments: development of instruments that are more sensitive to short-term changes and to moderate and mild levels of retardation; development of an instrument battery to measure social/vocational adjustment and levels of emotional disturbance).

PARENT-THERAPIST PROGRAM/RESIDENTIAL TREATMENT FOLLOW-UP STUDY (OMHF)

J.S. Rubenstein and *Fran Pilon*, Chedoke Child and Family Centre

Residential programs for emotionally and behaviourally disturbed pre-adolescent children have included foster care, group homes, treatment centres, and psychiatric hospitals. Little research has been directed at examining the effects of these programs on the children who experience them. The present investigators proposed to conduct such an examination, by comparing the long-term effectiveness of three residential treatment programs on the academic, social, and emotional well-being of children with emotional and behavioural problems.

The programs were located in Hamilton. Two were traditional residential treatment centres — Mount St. Joseph (MSJ) and Lynwood Hall (LH) — and the third was a specialized foster care treatment program — the Parent-Therapist

(PT) program — that was a family-based alternative to traditional centres.

In an earlier study, the principal investigator had evaluated 76 children treated in these residential programs between 1972 and 1975. All children were from multi-problem dysfunctional families. The study did not determine any significant differences in treatment outcome at the time of discharge between those treated in the PT program and those treated in the two centres.

For the present study, 60 of the original 76 children were located, and 52 agreed to participate. This is an unusually high number for a hard to reach group. There were 17 children from the PT program, 16 from MSJ, and 19 from LH.

A semi-structured interview was conducted with each youth, focussing on the approximately six years since the child's discharge from residential treatment. Comparisons were made between the youths' reports and actual records (e.g., those of schools, police, and child welfare agencies). Children were also administered the Wide Range Achievement Test, as they had been previously when admitted to residential treatment.

The follow-up sample appeared to be representative of the original sample in terms of pre-treatment variables such as academic functioning, police contact, and family history of psychiatric problems. Comparison of the three follow-up groups indicated that they were similar in terms of treatment duration, time passed since treatment, and current age (from 12 to 20 years). The youths lived in diverse settings (e.g., 21 were with at least one natural parent, 14 were in a foster or group home, and six were in jail).

In terms of academic performance, all three groups appeared to be below average in reading, spelling, and arithmetic. Assessment of social factors showed that a vast majority of the youths (14 from PT, 14 from MSJ, and 13 from LH) had had police contact after discharge, and about half had spent some time in jail. There were no significant group differences in academic progress or social outcomes.

With respect to emotional health, more of the youths from the PT program than from the other two programs had used mental health services after treatment discharge, but the difference between the groups was not significant. A significant difference was found when suicide attempts were examined: five of the PT group and two of the MSJ group reported such attempts. Further analysis revealed that all seven of these children had been discharged from residential treatment to their natural parents. The investigators suggest that returning a child from a structured living arrangement to a chaotic home environment may counteract any improvements that might have been made during treatment.

In sum, the study indicates that the prognoses for emotionally and behaviourally disturbed young children treated in residential programs appear bleak, whether one considers academic, social, or emotional well-being.

A COMPARISON OF TREATMENTS FOR CONDUCT DISORDERED ADOLESCENTS (OMHF)

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In recent years, increasing numbers of adolescents with conduct disorder problems have been referred to children's mental health facilities in Ontario. In an attempt to find the most effective way of dealing with these difficult-to-control youths, the present study proposed to examine three specialized treatment programs. The first program used a traditional token economy (TE) approach, the second a social learning approach, and the third focussed on cognitive behavioural therapeutic (CBT) techniques and philosophy.

Major administrative changes at Thistletown Regional Centre (the site of the study) led to the social learning program not being set up and to very limited numbers of subjects for the other two programs.

The study subjects included 12 youths in the TE program and 15 in the CBT program; at follow-up, approximately one year after discharge from the program, there were 10 and 13 youths respectively. A community comparison group of youths referred to, but not accepted in, Thistletown was also included: 25 youths initially and 11 at follow-up.

The average length of stay for youths in the treatment programs was 6.5 months.

Assessment measures employed included the Child Behavior Checklist, the Basic Personality Inventory, and the Self-Report Delinquency Scale. Parents, teachers, and police records were used as further sources of information about the youths' behaviour.

The investigators compared the three groups on several measures (including number of police contacts between discharge and follow-up), and also examined the TE and CBT programs from the point of view of treatment environment.

COST-EFFECTIVENESS ANALYSIS OF A DAY TREATMENT PROGRAM FOR EMOTIONALLY DISTURBED CHILDREN (OMHF)

Nancy M. Johnston, R.J. Bruce Cassie, and *Joel P. Hundert*, Niagara Child Development Centre

Non-residential day treatment programs for emotionally disturbed children have

been suggested as an effective and economical alternative to residential treatment. Since a review of the literature revealed no data on the effectiveness and cost of these programs in relation to other programs for emotionally disturbed children, the present study proposed to compare the cost-effectiveness of four types of program: day treatment, behaviour adjustment classes in school, outpatient treatment, and assessment only.

The four treatment settings varied considerably both in intensity and cost. At the time of the study (1981), the estimated cost per year per child for day treatment, the most intensive program, was $19,000; for the other programs, which were progressively less intensive, the costs were $8000 for behaviour adjustment classes, $1250 for outpatient treatment, and $400 for assessment only.

The study sample consisted of 68 emotionally disturbed children aged six to 12 years: 27 in day treatment, 13 in behaviour adjustment, 12 in outpatient, and 16 in assessment. Six measurement instruments were administered a month before the child's admission to a program; after six weeks in the program and every six months thereafter during it; and at three and 12 months after discharge. Included were measures of the child's level of adjustment (parent and teacher ratings on the Child and Adolescent Adjustment Profile; independent observation of classroom behaviour), self-concept, academic status (Wide Range Achievement Test), and family functioning.

The data indicate that, at the time of pretesting, the four groups of children were quite similar — they differed on only six of 28 measures (e.g., the day treatment group had more difficulties than the others with peer relations and school work). The groups did not appear to differ in most areas in the severity of their emotional/behavioural problems.

Examination of group differences at the point of discharge from the programs found significant differences in only three of the 28 measures (the same areas of difficulty as at pretesting).

With respect to treatment gains, six months after admission the children showed some gains on about half the measures, mostly in the areas of emotional adjustment and self-concept. There were no academic gains. The results at 12 months were almost identical to those at six months. Twelve months after discharge, the gains appeared to persist.

The investigators point out that the results of the study should be interpreted with caution for several reasons (e.g., the groups may have differed in areas other than those measured; children's length of stay in a program could not be controlled; small sample sizes meant that analysis of follow-up testing could be carried out for only the day treatment and behaviour adjustment groups).

The finding that children in all treatment groups made moderate gains is consistent with previous studies that found that emotionally disturbed children improve with treatment. What is somewhat surprising, the investigators

state, is that no clear superiority of one treatment mode over another was evident. The investigators conclude by recommending several areas for further research (e.g., since the cost of treatment is directly related to the length of stay in the program, optimum periods of stay should be examined).

CRISIS INTERVENTION SERVICES — HOME CARE AND INPATIENT: A COMPARISON (OMHF)

Steven J. Stein, Richard Berry, and *Jack Perlov*, Thistletown Regional Centre for Children and Adolescents

Crisis intervention services for children and adolescents in Ontario generally have demands for service that far exceed their service delivery capacity. The present investigators suggested that information about the characteristics of the individuals served by inpatient and by outpatient crisis intervention programs would be useful for future planning and allocation of resources. They proposed also to determine the effectiveness (in terms of cost and outcome) of the two treatment approaches.

Major administrative reorganization of the services provided by Thistletown Regional Centre (the site of the study) meant that the research could not be carried out as planned. The investigators examined only the characteristics of the children and adolescents served.

The two programs that were the focus of the study were the Crisis Intervention Programme (CIP) and the Crisis Home Care Service (CHC). In the period July 1980 through December 1982, 362 youngsters aged four to 19 years were referred to Thistletown. The investigators describe the demographic and behavioural characteristics of the 217 of these children who were treated in some way: 80 in CIP, 84 in CHC, and 53 receiving consultation or assessment.

TEACHING RELAXATION TECHNIQUES TO CHILDREN WITH MIGRAINE AND MUSCLE CONTRACTION HEADACHES (OMHF)

Patrick McGrath, Peter Humphreys, John Goodman, and *Philip Firestone*, Children's Hospital of Eastern Ontario

Migraine headaches are common in children and can be frequent and debilitat-

ing, interfering with home and school activities. Often physicians are reluctant to prescribe, and parents to administer, anti-migraine drugs that are commonly used for adults. Assisting children to control and cope with their headaches without using drugs was the goal of this study. In particular, the researchers sought to evaluate the use of relaxation training as a help in reducing the intensity and frequency of children's muscle contraction and migraine headaches.

Subjects for this on-going study were children aged nine to 17 years who had been referred by their physician. These children had headaches that had recurred at least once a week for the previous three months and that were not linked to dietary factors, allergies, or the menstrual cycle. After four weeks of baseline assessment and record keeping, the children were randomly assigned for six weeks to relaxation training or one of two control methods — non-specific placebo treatment or self-monitoring (i.e., keeping a headache diary only). Next, all children were followed up for four weeks. At this point, those in the self-monitoring group were offered relaxation training. Throughout, all children and their parents independently kept daily diaries of the children's headaches. Follow-ups and reassessments were conducted at intervals up to a year after treatment.

Preliminary results with approximately 60 children indicated that, when compared with the control methods, relaxation training reduced the intensity, duration, and frequency of headaches in children with more severe migraine; children with lower initial levels of migraine showed no real differences.

The researchers are continuing their study, carrying out further follow-ups and assessments and testing considerably more children. They are also continuing their analysis of the considerable data collected. Two of the many areas they are looking at are the prediction of successful treatment of migraine and the validity of using the headache diary.

Developmental Handicaps

EVALUATION OF PROCEDURES TO ACCELERATE THE ACQUISITION OF GENERALIZED INSTRUCTION-FOLLOWING, IMITATION, AND SELF-HELP SKILLS IN DIFFICULT-TO-TEACH CHILDREN (OMHF)

Maurice A. Feldman, Surrey Place Centre, and *Andrew J. Dalrymple*, Huronia Regional Centre

Training in instruction-following, communication, and self-care is essential in allowing difficult-to-teach (e.g., developmentally or sensorily handicapped) per-

sons to function as independently as possible. Although behaviour modification procedures have been used for several years to teach these skills, very little research has been conducted regarding the most effective training strategies for these procedures. The present investigators proposed to identify and evaluate techniques designed to increase the effectiveness of behaviour modification procedures with difficult-to-train persons.

Study participants were selected from among the residents of a 900-bed provincial institution for the developmentally disabled.

As with many studies of behavioural modification using operant conditioning techniques, small numbers of subjects were the object of intensive investigation. A typical study, one of four carried out, compared different prompting and correction procedures for teaching expressive sign language to non-communicative adolescents and young adults. Ten subjects had three sessions per day in which they were asked to give the correct sign for different common objects. The two prompting procedures used were (a) sequential prompting, i.e., gradual increases in the intensity of prompting from modeling to light hand-over-hand assistance to full hand-over-hand assistance and (b) graduated guidance, i.e., gradual decreases in the intensity of prompting from full hand-over-hand assistance to no physical assistance. These procedures were used either on their own or in combination with corrective practice (also known as positive practice), i.e., if the subject did not respond correctly within 10 seconds, the trainer engaged the subject in 10 rapid-paced repetitions of the correct sign.

The results indicate that graduated guidance prompting was more efficient than sequential prompting and that corrective practice, particularly when combined with graduated guidance prompting, accelerated the subjects' learning of signs. Two subjects showed acquisition of signing only when corrective practice was added. There were no apparent negative side-effects of the corrective practice procedure.

The investigators suggest that the mechanism by which corrective practice works (e.g., punishment, negative reinforcement) needs to be determined so that corrective practice can be used to facilitate the learning of sign language in the most effective way possible.

The other three studies carried out examined whether or not (a) preestablishment of a nurturant relationship between the trainer and the trainee would enhance the trainer's effectiveness in teaching a skill, (b) participation in off-residence prevocational training would reduce the incidence of the participants' on-residence maladaptive behaviour, and (c) training in generalized instruction-following would facilitate a developmentally disabled person's acquisition of self-care skills.

AVERSIVE AND EDUCATIONAL EFFECTS OF OVERCORRECTION AND CORRECTION PROCEDURES IN TRAINING PROGRAMS FOR SELF-CARE AND LANGUAGE SKILLS (OMHF)

Bradley D. Bucher, University of Western Ontario, and *Maurice Feldman*, Surrey Place Centre

Behavioural training programs for teaching skills and appropriate behaviour to difficult-to-teach children typically include correction procedures for errors. If these procedures succeed, it is not clear whether they do so because they provide guidance or cueing, or because they provide an aversive consequence for errors. The present investigation, therefore, proposed to examine some common correction procedures to determine whether their effectiveness is attributable to their educational characteristics or to their aversiveness.

Several studies with small groups of subjects were carried out. Among the studies were examinations of the effects of positive practice overcorrection on decreasing inappropriate behaviour, and a comparison of stimulus shaping and prompting in the training of visual-motor and self-care tasks.

Subjects for the studies were selected from local institutions and schools for the developmentally handicapped. All were diagnosed as moderately to severely handicapped.

In one study, five adults had object placement training. The correction procedure used was positive practice — after an incorrect response or behaviour, the therapist engages the subject in rapid-paced repetitions of the correct response. In this study, the subject's stereotypic behaviour (e.g., self-stimulation) was the cue to begin positive practice of the motor task. Positive practice with reinforcement added for correct performance, as compared with positive practice alone, yielded faster training of the motor task and a faster reduction in stereotypic behaviour. There were also fewer undesirable side-effects (e.g., aggression) with the reinforced procedure. The investigators caution that, since these results were obtained with a select population and specific behaviours, the same effects might not extend generally over other populations and behaviour problems.

In another study, one set of six children was trained in pegboard insertion skills, and another set of six to hang a toothbrush or washcloth on a specific hook. Both sets of children were trained concurrently on two related tasks, using standard prompting procedures for one and stimulus shaping for the other. (Stimulus shaping involves gradually changing the shape of the stimulus over trials — the discrimination is at first easy, then is made more difficult.)

Training with stimulus shaping required less time to learn the task, resulted in fewer errors, required fewer and less intrusive therapist's prompts, and resulted

in more reinforcement. The investigators conclude that stimulus shaping appears to be a successful way to teach discrimination skills. They also point out that several procedural features of the stimulus shaping program (e.g., sequences of therapist's prompts) may not have been optimal and should be subjected to further research.

BIOFEEDBACK TRAINING WITH RETARDED CHILDREN (OMHF)

Noel E. Derrick and *I. Freilich*, Ongwanada Hospital

The use of biofeedback procedures has enabled some subjects to bring various physical functions under volitional control. The present investigator conducted a pilot study to determine whether or not these procedures might be beneficial in the training of retarded children with multiple handicaps.

Developmentally and physically handicapped children in a residential facility participated in two types of biofeedback procedure: four children had head position training, and five had spastic muscle relaxation training.

The investigator concludes that biofeedback training, although unlikely to replace other therapies, appears to have been of some benefit for some of these children. He mentions that there appears to be no way at present of predicting which particular subjects are likely to benefit.

EVALUATION OF FAMILY SUPPORT WORKER MODELS

Jack Santa-Barbara, Applied Research Consulting House Ltd. (on behalf of MCSS)

The diffuse structure of children's services in Ontario has sometimes made co-ordinating services to clients difficult. Given the particularly diffuse nature of family support services and the increasing emphasis on supporting families at home, service co-ordination difficulties may become critical. An approach with potential for rectifying this situation is the family support worker model. The purpose of the present study was to evaluate this model as a means of co-ordinating support service delivery to families with developmentally handicapped children.

The focus of the evaluation was the M.R. Family Support Worker (FSW)

Program. As specified by MCSS in 1975, the FSW program was designed to aid families with a developmentally handicapped child by assisting them to identify their needs, referring them to the necessary services to meet their needs, co-ordinating these services, and providing ongoing support for the family. The program was to use a case management model, which includes a diagnostic component, an individual program plan, service delivery co-ordination, and an evaluative component.

From the 30 organizations contracted to offer the FSW program in 1981, a panel of professionals and program specialists selected for scrutiny seven organizations that were as diverse and representative as possible. These organizations were the Children's Aid Society of Metropolitan Toronto; City Social Services Department, Thunder Bay; Dalhousie Community Service Centre, Ottawa; Huntley Youth Services, Toronto; Sheridan College of Applied Arts and Technology, Oakville; Surrey Place Centre, Toronto; and Walkerton and District Association for the Mentally Retarded.

Sixteen family support workers from the seven organizations were interviewed. The workers chose for the evaluator 93 case files (from eight to 15 files per organization) that they considered typical of their mix of clients over the past several years. Telephone interviews were conducted with 84 of the parents represented in these files, and with 100 community workers in related (e.g., social service, educational) agencies. In addition, a review was carried out of FSW program documents (e.g., staff time sheets, job descriptions, minutes of staff meetings, standard procedures, correspondence).

The study found that the nature and characteristics of the host organization appeared to have major effects on the orientation of the FSW program. Those programs affiliated with larger, multi-service organizations tended to concentrate on providing direct services to clients, and to use the organization's internal services when service co-ordination was needed. Those with the smaller organizations tended to concentrate more on finding and co-ordinating external community services.

While all organizations had some documented policies related to the FSW program, overall there appeared to be a diversity and lack of specificity of objectives, as well as a gap between MCSS specifications and the actual practices occurring. For example, although the program was to focus on families with developmentally handicapped children, not all the children reviewed in the 93 case files were documented as being so. Few of the components of the case management model were apparently being carried out at the level or in the manner anticipated (e.g., there was a lack of indicators or time frames with which to measure or evaluate achievements, and a limited use of individual program plans). Most examples of case management practice were concentrated in a few agencies.

With respect to client satisfaction, 70 of the 84 parents interviewed were

very satisfied with the quality of service provided by the family support worker. Sixty-one parents (73%) indicated that the worker would be the first person they would turn to for help for new or different services for their child.

In conjunction with the examination of the seven organizations, the evaluator reviewed the literature on family support worker concepts, programs, and evaluations, and made site visits to some case management programs in Ontario. He presents an outline of the key elements of a family support/case management model, and suggests how the existing case management system in Ontario might be expanded for children's services (e.g., develop an interministerial policy regarding all human services).

Physical Disabilities

AN ADDRESS TO THE PROBLEM OF DROOLING IN CEREBRAL PALSY THROUGH AN INVESTIGATION OF ORAL MOTOR FUNCTION AND ITS REMEDIATION (OMHF)

David J. Kenny, The Hospital for Sick Children, and *Morris Milner*, The Hugh MacMillan Medical Centre (formerly, Ontario Crippled Children's Centre)

Up to 13% of individuals with cerebral palsy drool, a condition that creates considerable social difficulties. There appears to be consensus that drooling results from a dysfunction in oral motor activity, primarily swallowing. Little information is available on the efficacy of either radical therapeutic interventions (e.g, surgery, the use of drugs) or conservative interventions. The present study proposed to examine the nature of oral motor function and a conservative treatment approach to its dysfunctional aspects in children with cerebral palsy. Specifically, the study sought (a) to discern the oral motor factors that cause drooling, and the interrelationship between swallowing and drooling, and (b) to evaluate the effectiveness of treatment techniques aimed at teaching children to control their drooling.

For the first part of the study, the study sample consisted of three groups of 12 children each: a normal (control) group, a group with cerebral palsy who drooled, and a group with cerebral palsy who did not drool but had oral motor difficulties. Children in the normal group were recruited from a nearby elementary school; they had to be at least six years of age, motivated to participate, and have the ability to follow directions and attend to a task. Children with cerebral palsy were drawn from the inpatient and outpatient population at the Ontario Crippled Children's Centre in Toronto.

The study consisted of five sessions, each comprising two half-hour phases. The subjects were viewed (a) during passive activity (watching TV) to determine their frequency of swallowing, and (b) performing a number of drinking tasks while the activity of their oral-facial muscles was monitored.

The results for the normal children indicate that individuals maintain a very specific and minimally changing oral motor pattern during a swallow, and that a significant degree of variation exists between individuals. Subconscious swallowing rates varied both within an individual between sessions, and between individuals, and appeared to agree with published estimates for adults.

Children in the two cerebral palsy groups demonstrated a swallowing reflex that was similar to that of the normal group, but a diminished ability to control the initial preparatory phase of the swallow. The children also exhibited lower subconscious swallowing rates as compared with the normal group (the non-drooling group swallowed at approximately 75% of the normal rate, and the drooling group at 45% of the rate). The investigators concluded that drooling is the result of an inefficient swallow and a diminished swallowing frequency.

For the second part of the study, the subjects were 12 children with cerebral palsy who drooled, had not been involved in any other therapeutic intervention aimed at decreasing drooling, and were at least six years old.

Each subject was given a baseline assessment. This was followed by biofeedback training for control of the muscles around the mouth and by training to increase the frequency of swallowing (an auditory signal from an interval timer was used to raise the act of swallowing to a conscious level). The next stage required the subjects to use the timer at school or in their other regular environment for at least two hours daily for a period of three to four weeks. After a further month during which there was no treatment, all the subjects were reassessed.

The data indicate that a significant decrease in drooling rate and some increase in swallowing frequency occurred, with only a slight regression at the one-month follow-up assessment. The investigators conclude that these findings imply that the decrease in drooling must be attributed to an improved efficiency in oral motor performance (i.e., the motor act of swallowing became more efficient). They consider that the results of the study emphasize the usefulness of biofeedback training in the conservative remediation of drooling and that, with proper support strategies (e.g., booster practice sessions), long-term maintenance of control would be feasible.

One of the study reports (Biofeedback techniques and behaviour modifications in the conservative remediation of drooling in children with cerebral palsy) won the Richmond Cerebral Palsy Center Award. The award was presented at the meeting of the American Academy for Cerebral Palsy and Developmental Medicine, held in October 1985.

Cognitive Development

A LONGITUDINAL ANALYSIS OF PROGRAMMATIC VARIABLES IN THE COGNITIVE, ACADEMIC, AND BEHAVIOURAL DEVELOPMENT OF LANGUAGE-DELAYED CHILDREN (OMHF)

Charles E. Cunningham, Linda S. Siegel, and *H.I.J. van der Spuy,* Chedoke Child and Family Centre

The aim of this project was to conduct a long-term evaluation of the effectiveness of early intervention programs for language-delayed children, i.e., children who begin to talk at a much older age than normal. An additional goal was to identify factors that predict later cognitive, academic, and behavioural difficulties for these children. The project was comprised of several studies, some of which are still in the preliminary stages of data analysis.

The first study compared language-delayed preschoolers in a classroom program with a control group of children on a waiting list for the program. While children in both groups showed an improvement in language scores, children in the treatment group demonstrated significantly greater gains in language comprehension.

A second study compared the effects of a preschool language classroom program and a parent training program on language-delayed children, generally delayed children, and a control group of children on a waiting list for treatment. The classroom program appeared to increase the social initiative and responsiveness of the language-delayed children. The parent program appeared to have a positive effect on parenting skills and child behaviour for both the delayed groups. Although the language-delayed children showed an improvement in language comprehension and expression, the scores of the three groups did not differ.

Several studies were conducted to compare the interaction of language-delayed and normal children with their mothers and peers. In comparison with the normal children, the language-delayed children showed a marked lack of social initiative during interactions with their mother. Both groups of children were similar in their responsiveness to social interactions and their compliance during tasks. Mothers adjusted the complexity of their language to a level consistent with their child's ability to comprehend rather than express language. How accurately the mothers calibrated the complexity of their speech appeared to relate to their child's social initiative and responsiveness to interactions and questions. During peer interactions, language-delayed preschoolers showed less social initiative than normal preschoolers. The normal children directed more

controlling interactions to, and were less compliant with, the language-delayed children than with normal peers.

In all, 122 language-delayed preschool children were followed to eight years of age. Follow-up assessments included measures of cognitive ability, academic achievement, social interaction, and behavioural adjustment. Preliminary analyses suggest that, while the prevalence of developmental learning disabilities among these children is relatively high, a significant number of the children are not experiencing academic difficulties. Other preliminary indications appear to be that children at greatest risk for academic difficulties at age eight scored lower on measures of language expression, language comprehension, non-verbal cognitive ability, visual-motor co-ordination, and socioeconomic status; children at risk for behavioural difficulties at age eight evidenced more significant behavioural problems as preschoolers, were less compliant, elicited more maternal control, showed less initiative socially, and scored lower on measures of verbal ability and memory.

More comprehensive analyses are being conducted to determine the long-term outcomes of the preschool intervention programs and to identify factors predicting later cognitive, academic, and behavioural difficulties for these children.

SPECIFIC READING DISABILITIES: AN INVESTIGATION OF SUBTYPES, REMEDIATION, AND OUTCOME (OMHF)

Maureen W. Lovett, The Hospital for Sick Children

Reading disabilities (developmental dyslexia) in children are now acknowledged to be a *class* of specific learning disorders, presumably differing in origin, presentation, and outcome. Only recently has serious attention been focussed on identifying subtypes of dyslexia. In addition, there appears to be consensus in the literature on dyslexia that no reliable evidence exists of the relative merit of one treatment approach over another. In light of this situation, the present study proposed to compare the effectiveness of three treatment approaches for helping children with different types of reading disability.

Children for the study were referred from departments of the Hospital for Sick Children and from special education consultants of boards of education. In order to be considered, children had to be between eight and 13 years of age and of at least low average intelligence, have demonstrated a specific underachievement in reading, have English as a first language, and have no serious physical or emotional handicaps.

Before treatment began, children were placed into two reading disability groups on the basis of their oral reading performance on a screening battery. One group had significant problems in decoding accuracy (accuracy disabled), and the other a marked deficit in reading rate (rate disabled).

Three treatment programs — two experimental remedial and one alternative treatment control — were used: (a) the Decoding Skills (DS) program, focussing exclusively on the acquisition of word recognition and spelling skills; (b) the Oral and Written Language Stimulation (OWLS) program, concentrating on language stimulation and instruction in vocabulary, structural analysis and grammar, and discourse comprehension; and (c) the Classroom Survival Skills (CSS) program, providing training in social skills, classroom etiquette, life skills, organizational strategies, academic problem-solving, and self-help techniques.

One hundred and seventy-eight children were randomly assigned to one of the three treatment programs. Subsequent counterbalancing was undertaken to ensure that equal numbers of accuracy disabled and rate disabled subjects were represented in each program. Children were seen in pairs for 50 minutes a day, four days a week, over a 10-week period.

Two test batteries were administered to the children both before and after the treatment sessions — a battery of standardized tests to measure generalized treatment effects, and a battery of experimental tests to measure treatment-specific effects in the present design. The tests were selected to assess different aspects of reading and spelling acquisition, as well as some of the non-reading (e.g., language, perceptual, and memory) skills thought important to successful reading acquisition.

Although children in all three groups showed improvement on most measures, there were a number of generalized and treatment-specific effects for DS- and OWLS-trained children that were significantly greater than those for CSS-trained children. The DS-trained children exhibited an advantage in word recognition skills, and more so for exception words (those spelled according to convention rather than pronunciation — e.g., suite) than for regular words (those that conform to predictable sound-symbol correspondence rules — e.g., wade). Within the DS program, only the accuracy disabled children made gains on regular words. The DS-trained children also showed an advantage in spelling pronounceable non-words, in spelling in a written composition, and on two non-reading measures — the rapid naming of colours and letters and the blending of individual speech sounds. The OWLS-trained children showed an advantage in contextual reading (accuracy, rate, and comprehension), oral vocabulary, and some oral syntax skills. They were also superior to the control subjects in spelling pronounceable non-words, in spelling while writing connected discourse, and in letter-naming speed and speech-sound blending.

Several of the treatment-specific effects observed on the experimental tests were not replicated on the standardized tests purportedly measuring the same skills (e.g., word recognition, contextual reading). The investigator speculates that these discrepancies likely reflect (a) the insensitivity of traditional achievement measures to treatment-specific change, and (b) a possibly characteristic failure of reading disabled children to generalize newly acquired specific knowledge to related areas.

The findings of the study demonstrate that, while developmental reading disorders appear to be amenable to treatment, there is a need for more research on the generalization and application of new learning when treatment does succeed with disabled learners.

PATTERNS OF AUDITORY PERCEPTION SKILLS IN CHILDREN WITH LEARNING DISABILITIES: A COMPUTER ASSISTED APPROACH (OMHF)

D. Elaine Pressman and *Doris Roche*, Children's Hospital of Eastern Ontario, and *P. Firestone*, University of Ottawa

Previous research has shown that evidence of a learning disability is manifested in one or more perceptual deficits and that, on tasks to assess auditory skills, learning disabled children performed at a substantially lower level than normal comparison groups. Since early identification and intervention may help prevent major social and educational problems for these children, the present study was designed to investigate the feasibility of using an easy to administer computerized screening test.

The subjects of the study were three groups of boys aged seven to 11 years: 40 boys diagnosed as learning disabled; 40 control boys matched by school board and age, selected randomly from names referred by the principals of 13 regional public and separate schools; and 21 boys, labelled problematic, who were eliminated from the control group for scoring below the acceptable level on preliminary tasks to screen for learning disabilities. All children were given five subtests selected from the Goldman-Fristoe-Woodcock Auditory Skills Test Battery for computerized administration.

Two of the subtests — recognition memory and memory for content — successfully identified 92.5% of the learning disabled children. However, since the same tests also incorrectly categorized 35% of the control children as high risk, further research is required to eliminate such high false-positive predictions.

The researchers mention a disturbing finding concerning the children

referred by the schools to be control subjects. One-fifth of these children scored poorly overall on the auditory perception tests. Whether this situation indicates that school personnel are unaware of many children's learning problems or that there is some difficulty with the assessment procedure remains unclear. Another possibility suggested is that these children do have the cognitive defects of a learning disabled child but through some compensatory mechanism have developed academic skills.

The researchers report that the children appeared to enjoy working with the computer, that it permitted standardization of the testing procedure, and that it simplified scoring. The fact that the assessments could be administered by staff without specialist training suggests a potential cost saving. If indeed this is the case, it may be worth while to incorporate computer assisted assessment into programs or to develop it further.

Child Welfare

A PROPOSAL TO IMPROVE CAS WORKERS' EFFECTIVENESS IN DEALING WITH CHILDREN'S FEELINGS ABOUT SEPARATION

Sally E. Palmer, University of Toronto

Two persistent problems connected with children in foster care are breakdown of foster home placement and loss of contact with the natural family. Social workers who deal with children in care may overlook the underlying causes of foster home breakdown, which often are related to the children's feelings about having to live apart from their natural family. In light of this situation, the present investigator aimed to develop, implement, and evaluate a program to improve Children's Aid Society (CAS) workers' effectiveness in helping these children deal with their feelings about separation (i.e., their feelings about being an agency ward, the reason for their admission to care, and their ongoing relationship with their natural family). The program's intent was to provide workers with an adequate theory base, an opportunity to practise clinical skills, and an awareness of personal inhibitions about dealing with separation.

Seventy-six CAS workers from two agencies (Family and Children's Services of London and Middlesex, and Catholic Children's Aid Society of Metropolitan Toronto) participated in the study. Half were randomly selected to receive training, and the others to be a control group.

Prior to training, information was collected on the workers' training and experience, and their knowledge and attitudes about separation. Training was

given in three sessions, each a month apart: an initial two-day workshop and two half-day workshops. Indices of worker practice were measured by self-administered questionnaires to the workers, supplemented by brief self-administered questionnaires to the children and foster parents. Agency statistics were used to examine foster home breakdown and reunion with natural family.

The data show that the typical CAS worker had a Bachelor of Social Work degree, three to four years' CAS experience, five to nine years' total social work experience, and one to two days' previous training in separation. Only 64% of the workers were assigned to work with both the children and their families.

With respect to children who had been in care for less than a year when the study began, the findings indicate that workers' CAS experience and prior separation training were positively associated with placement stability, and that separation training was associated with children's reunion with their family.

The greatest differences evidenced between the two groups of workers after the training program were in the rates of reunion of children with their families (e.g., of the 57 children admitted to care after the study began, nine of the 41 assigned to the training program workers were reunited in the following six months as compared with none of the 16 assigned to the control workers). The training program workers also reported more positive attitudes on the part of foster parents towards the natural parents. There was no significant difference between the two groups of workers in terms of placement stability.

In general, factors identified as being associated with positive outcomes included workers' ability and readiness to discuss separation with children; increased awareness of their own and children's feelings about separation; and provision of a supportive environment (e.g., promoting continuing parent-child relationships and positive foster parent attitudes towards natural parents).

In conclusion, the investigator recommends that, if the separation training findings can be verified in testing with other CAS workers, the training program should be offered to child-placing agencies across Ontario.

CONCILIATION VS. CONSULTATION: OUTCOME OF CHILD-CUSTODY CONTESTS REFERRED TO A FAMILY COURT CLINIC (OMHF)

John S. Leverette, Family Court Clinic, Kingston General Hospital

Although the study of the effects of divorce on children is of relatively recent origin, it has generally been assumed that the effects would be adverse on children who were the subjects of custody disputes. The present study sought to

examine this assumption, by investigating the outcome of clinical intervention in child custody contests.

Three study groups of families in which the parents were disputing custody of the child were proposed: (a) families who attended the Family Court Clinic and who were successfully conciliated; (b) families who attended the clinic and whose clinician made custody recommendations to the court; and (c) families who had no clinical intervention.

Considerable and continuing difficulties in recruiting subjects (only 17 families in total) meant that statistical analyses were not possible. The investigator states that, while the outcome of the project was a disappointment in view of the effort expended and the significance of the area, the process was useful in terms of the skill and knowledge developed by the researchers and their sharing of this skill and knowledge with others interested in research in this and related areas.

THE DEVELOPMENT AND SOCIAL BEHAVIOUR OF ABUSED AND CONTROL PRESCHOOL CHILDREN OVER THEIR INITIAL SIX MONTHS IN PUBLIC DAYCARE (OMHF)

Michael G.G. Thompson, Darlene K. Hall, and *Thomas F. Hay*, Rotary Creche Child and Family Clinic (formerly, West End Creche Child and Family Clinic)

A search through the literature on child abuse reveals that it is the parent, not the child, who is most studied. What literature does exist on the abused child, plus clinical observations and anecdotal reports, suggest that such children often show behavioural problems and developmental delays. Other studies support the notion that abused children are prime candidates for future school and social problems. Since some form of early intervention for these children would appear to be desirable, the present investigators proposed to assess whether or not abused children's integration into regular day care centres helps to remedy any dysfunctional social behaviour exhibited by them.

The subjects of the study were 28 abused and 28 control preschool children enrolled in public day care centres. The two groups were matched by age and sex. The abused children had been referred to the study by community agencies on the basis of confirmed physical abuse. (The investigators point out that the study subjects, about 90% of those referred, were the ones who did not show severe problems and who could be expected to improve in the day care.) The control children had an "average or better" relationship with their parents, as determined by day care staff and confirmed by staff observations. Problems

with subjects dropping out and finding well matched controls resulted in small numbers. After three to five months, 25 subjects remained in each group; after six to nine months, 18 remained in each.

Each child's social behaviour during free play was videotaped for 10 minutes (five two-minute samples over a 30-minute period) at each of three times: at entry to day care, after three to five months in day care, and after six to nine months. The videotapes were coded to describe the features of the social interactions. Children were also administered the Stanford-Binet test of intelligence at the beginning and at the end of six to nine months.

Initial average intelligence scores for the abused group (88.1) were significantly lower than those for the control group (98.2). For the 18 children in each group who were tested at the beginning and end, there was little change over time (for the abused group, mean scores of 87 at first and 84 later; for the control group, 100 at first and 101 later).

During the first observation period, the abused group spent an average of 76% of their time in solo play (not interacting with anyone else), while the control group spent 66% of their time playing alone. If another behaviour interrupted their solo play, the abused children were more likely than the control children to resume solo play. The control children were more likely to show some active behaviour to end their solo play, whereas the abused children tended to be more passive (i.e., ending it because of receiving some social overture) — this pattern continued over the course of the study. By the third observation period, the control children appeared to spend even more time in socializing (spending only 53% of their time in solo play), while the abused children showed little change from the first observation (spending 79% of their time in solo play). The sequences of solitary and social behaviours indicate that much of the abused children's problem appeared to occur in making a transition into social behaviour. Once positive social interaction began, the patterns of behaviour for the two groups were similar.

The investigators mention two factors that they consider may be related to the observed differences between the two groups: the abused children's more irregular attendance at day care, and their home experience (many of their parents were judged as needing ongoing assistance, even after six to nine months of help).

The investigators conclude that, if abused children are to benefit from the day care experience, they will probably need special help in adapting to their new social situation. They make suggestions for further research (e.g., an investigation of the transitions in social/non-social behaviour) that might lead to insight into the problems of abused children and to specific treatment efforts to improve their socialization.

Juvenile Corrections and Detention

EVALUATION OF DURHAM REGION COMMUNITY SERVICE ORDER PROGRAM

Anthony N. Doob and *P. Dianne Macfarlane*, Centre of Criminology, University of Toronto (on behalf of MCSS)

A community service order (CSO) program is one whereby a juvenile found guilty of an offense is ordered by the court to perform a specified number of hours of unpaid service work for a community organization. In contrast with traditional modes of punishment for dealing with delinquency, the CSO aims at developing in the offender a sense of accountability and responsibility to society through involvement in socially useful work. The present study was a systematic examination of the Community Service Order Program in Durham Region. The study's basic aims were to investigate (a) how the program was perceived by the people affected by it and how it was viewed by the general public, and (b) what effects the program had on the young offenders.

The subjects of the study were the 100 juvenile offenders who had received a CSO in the 18 months preceding March 1982, and 91 juvenile offenders (matched by age, sex, history of delinquency, seriousness of offense, and family structure) who, over the same period of time, had received probation only. Interviews were conducted with the juveniles, their parents, the officials and agencies involved with them, and 100 randomly selected citizens in the community. Police and school records were also examined. The researchers point out that, since the data were collected retrospectively, there are certain limitations on the way the findings can be interpreted.

The study found that juveniles receiving a CSO were more likely to be male and to be charged with a somewhat more serious offense than those juveniles receiving probation only. The number of service hours assigned by the court varied (from three to 900 hours, with a median of 50 hours), as did the type of work carried out (e.g., custodial/maintenance, sports/crafts program assistance, senior citizen/mental health patient care). About 70% of the juveniles had completed or were still working on their CSO. Of those who failed to complete it, seven had moved out of the jurisdiction and 11 never started the program. The data suggest that those who received the CSO on their first court appearance were most likely to complete it, and that the type of agency placement had no discernible effect on the likelihood of its completion.

With respect to perceptions of the CSO program, the probation officers felt that it had either no effect or a positive one on their relationship with the young person. The majority of agencies stated that they had benefitted from

the work carried out; a few of the juveniles were actually hired later by the agency and others maintained a relationship with the agency. Parents and the juveniles themselves generally expressed satisfaction with the experience and felt that the young person had benefitted. The general public as well indicated approval of the idea of a CSO program.

In terms of the program's effects on the young offenders, the CSO supervisors reported some improvements in juveniles' skills that would be relevant to future employment. In general, police data, school data, and self-reported delinquencies yielded no differences between juveniles receiving a CSO and those receiving probation only. However, those in the CSO group, who, before their court appearance, had been recorded in police files as being cautioned more frequently, were cautioned less frequently after than were those in the matched group. Also, the CSO group reported fewer instances of breaking the rules of probation.

The positive way the program appears to be perceived, and the indications of its positive effects on the juveniles' behaviour, suggest that an innovative "mid-range" alternative disposition for juvenile offenders has been implemented and should be expanded. Also, given the potential value of the program, the findings suggest that the selection procedures for CSO candidates should be looked at to ensure the inclusion of all juveniles who might benefit.

In conclusion, the authors discuss the adjustments that might have to be made to make CSO programs compatible with the Young Offenders Act.

OTHER STUDIES

Overview

The studies in this section, although not focussed on either of the priority areas, were funded because they were relevant to, or supportive of, the general research objective of improving the quality of children's services. The grants chosen were selected primarily for their technical merit and/or their adherence to the principles that MCSS emphasizes in delivery of services for children (e.g., support for the integrity of the family unit wherever possible; minimal intervention in the lives of the individuals served; accountability for service performance). International recognition in the form of the Benton Award has come to one of the researchers — Dr. Maureen Dennis — for work stemming from her study.

In addition to the grants, the MCSS-initiated projects were developed to

research other important issues as well as to reflect MCSS's principles of service delivery.

The wide variety of topic areas covered by the 20 studies are grouped as follows: mental health, child welfare, developmental handicaps, cognitive development, physical disabilities, day care, parenting, community programs, and test development/assessment.

Mental Health

A LONGITUDINAL STUDY OF DISTURBING AND NON-DISTURBING CHILDREN FROM PUBESCENCE INTO LATE ADOLESCENCE (OMHF)

Harvey Golombek, Peter Marton, Bernard Stein, and *Marshall Korenblum,* C.M. Hincks Treatment Centre

Does turmoil in pubescence or adolescence lead to psychiatric disorder in adolescence or in early adulthood? What aspects of personality remain stable during adolescence and what aspects change? What are the relationships between physical maturation and psychological maturation? To address these and numerous other questions related to the disorders of adolescence, the present investigators undertook a longitudinal study of personality development in adolescents who were not patients and who had no known disorder. In particular, the study aimed (a) to determine areas of stability and change in adolescents' personality development, (b) to establish the prevalence of disturbance in personality functioning in early, middle, and late adolescence, and (c) to identify, in pre-adolescence, risk and protective factors for behaviour and personality disorders later in adolescence.

The study sample was selected by using parent and teacher behaviour rating scales to screen all the Grade 5 children of one urban school board region. From a total of 669 students, 72 were chosen as being representative of the range of behaviours from very quiet and non-disturbing to very boisterous and troublesome. The sample comprised approximately equal numbers of boys and girls, and was determined to be of predominantly middle and lower socioeconomic status. Fifty-nine adolescents participated for the full eight years of the study, a very high completion rate.

Each year the adolescents and at least one of their parents, usually the mother, underwent a full-day evaluation of their psycho-social characteristics. The adolescents completed structured and semi-structured interviews, self-

ratings, and a psychometric battery. They also had a medical examination to determine their physical maturation. The parents were interviewed and completed questionnaires to provide information about demographic characteristics, family functioning, and behaviour ratings of the child. In addition, the schools provided teacher ratings of the adolescents' behaviour and information about their attendance and academic achievement.

Although analysis of the substantial body of data gathered is still continuing, some initial findings describing the psychological characteristics of well functioning and disturbed young adolescents (ages 12 to 14 years) have been presented.

The findings indicate that young adolescents can be classified by their personality functioning: those without personality disturbance, those with some disturbance, and those with marked disturbance. Youngsters with each type of personality functioning differ in their clinical presentation, self-concept, and behaviour patterns. About half the young adolescents appear to be developing harmoniously; to varying degrees, the other half appear emotionally turbulent (i.e., anxious, depressed, angry) with poor self-concept and negative attitudes. The youngsters with markedly disturbed personality functioning (about 20% of the total sample) subdivide into two main groups — a larger group of tense, fearful, and inhibited individuals and a smaller group of individuals with antisocial features. Parents and teachers seem to easily recognize the disobedient ones, but have considerable difficulty in identifying those who are quietly disturbed.

Further analyses will consider the risk and protective factors for behaviour and personality disorders later in adolescence.

THE SOCIAL AND SOCIAL-COGNITIVE SKILLS OF "SOCIALLY WITHDRAWN" PRESCHOOLERS AND KINDERGARTENERS: A LONGITUDINAL STUDY (OMHF)

Kenneth H. Rubin, University of Waterloo

Previous research has suggested that poor peer relations in early childhood may play a causal role in later poor academic performance and psychological adjustment. This study was designed to develop an observational procedure to identify socially withdrawn preschool and kindergarten-aged children. The goal was to understand why some children are rejected by their peers and how such rejections may be minimized to ameliorate further rejection and problems.

The study followed children identified in kindergarten as isolates and as sociables to see if the isolates were less social and less popular with their peers in Grade 1.

In the first stage of the study, 123 preschool children were observed during free play in the classroom over a 30-day period, and 111 kindergarten children over a 25-day period. Their behaviour was coded and criteria were applied to classify them into three groups: isolates (17 preschool and 17 kindergarten), sociables (17 preschool and 18 kindergarten), and normal. Measures of sociometric popularity and role-taking, a social problem-solving test, and a receptive vocabulary test were administered to each child. In addition, videotapes were made of free play in a laboratory setting of a random sample of five children from each group and class level along with a classmate of each child matched by age and sex.

The classroom observations revealed that the non-social behaviours of the preschool and kindergarten isolate groups were different (i.e., the nature of the solitary play of the preschool group was, in the investigator's terms, more functional and dramatic and less constructive and exploratory than that of the kindergarten group). This finding suggests that the criteria for identifying isolate children should take into account developmental differences. The resulting procedure could then be used to identify an extreme group of isolate children.

In general, other than the isolates' low level of interaction, the observational and laboratory data revealed few differences among the groups. However, examination of the videotapes in conjunction with these data was suggestive of the difficulties that isolate children experience during peer interaction. The isolates appeared to be less successful in solving their interpersonal dilemmas and to be very compliant when asked/told by their peers to do something. In short, they appeared to be submissive and deferent relative to their age-mates.

The next stage of the study followed 72 of the kindergarten children into Grade 1. As before, they were observed during free play in the classroom and were administered the same battery of IQ, role-taking, sociometric, and social problem-solving tests. Their teachers also rated the children's social competence.

The findings suggest that isolate and sociable behaviour in early childhood may be relatively stable phenomena: 10 of the 18 children identified as isolates in kindergarten were identified similarly in Grade 1, as were 12 of the 15 children identified as sociables.

Although the investigator did develop a procedure for identifying socially withdrawn young children, he points out that the numbers of isolates observed were quite small. He recommends a replication of the study to increase the data base.

The study, now called the Waterloo Longitudinal Project, is still continuing.

Child Welfare

THE IMPACT OF EXPOSURE TO MARITAL VIOLENCE ON CHILDREN'S ADJUSTMENT (OMHF)

David A. Wolfe, Peter Jaffe, and *Susan Wilson*, University of Western Ontario

Family violence is becoming recognized as a widespread social problem. The plight of battered women, and some idea of why men assault their wives, have been documented. Very little light has been shed on the indirect effects of this violence on their children who witness the assaults. The present study proposed to provide a better understanding of the severity and type of adjustment problems for these children by determining the effects of marital violence on their social and behavioural development. In an extension of the research, the study proposed to focus on the children's social supports within and outside the family to determine what factors assist the children's adjustment to marital violence.

The study sample consisted of 142 mothers and 198 children (aged four to 16 years). Half the mothers and children had been in residence in transition houses (shelters for abused women and their children) across Southwestern Ontario, and were designated as being from violent families. The other subjects were recruited from the community through newspaper advertisements, and were classified as being from non-violent families (they had never sought refuge from a violent partner and reported no incidents of overt physical violence between adult partners since the child was less than two years old). Mothers and children who were receiving psychological or psychiatric services other than assessment were excluded from the sample. Violent and non-violent families were matched by socioeconomic status.

All subjects had an individual structured interview to obtain a history and description of the family. The mothers rated their child's behaviour on the Achenbach Child Behavior Checklist, and completed measures of family violence (Conflict Tactics scale) and maternal stress (Life Experiences Survey, General Health Questionnaire).

The results indicate that there were few significant differences in social competence and behavioural problems between girls from violent and non-violent families. Boys from violent families, however, had less social competence and more behavioural problems than boys from non-violent families (e.g., significantly more of those from violent families were reported as being destructive, disobedient, and likely to have attacked others).

Behavioural problems for children from both types of family appeared to be strongly associated with maternal adjustment and amount of physical aggres-

sion in the home. Mothers who reported fewer symptoms and changes in their own functioning were more likely to report fewer child behavioural problems as well. The investigators conclude that maternal functioning may be a significant moderator of children's adjustment to family violence. If this conclusion is correct, it reinforces attempts to provide support counselling services for women in shelters.

SOCIAL AND PSYCHOLOGICAL EFFECTS ON NATIVE CHILDREN OF SEPARATION FROM FAMILY AND CULTURE (OMHF)

Peter Homenuck, York University

Concern about the Native child welfare system has been expressed by Natives and non-Natives alike. In 1980 it was estimated that status Indian children were represented in the child welfare system at over four times the rate for all children in Canada. In addition, once admitted into care, Native children are much less likely than other children to be returned to their parents or to be placed for adoption. Those who are placed for adoption are, in the great majority, adopted by non-Native families. From the Native perspective, their culture's survival is jeopardized when so many of their children are removed. In light of these concerns, the present study was designed to investigate the feasibility of researching the social and psychological effects of separating Native children from their family and community.

The study reflects the combined efforts of numerous experts and professionals in the fields of child welfare, mental health, research methodology, and psychological testing and assessment, as well as representatives of Native organizations in Ontario.

The end result is an outline of a framework and methodology options to examine from various aspects the impact of separation. Five research areas, each involving a different research approach, are detailed: (1) the social and psychological effects of separation from family and culture; (2) the impact of removal of the Native child on Native families and community; (3) a comparative analysis of Native and non-Native interventions by the Children's Aid Society; (4) a study of non-Native families with adopted Native children; and (5) traditional child welfare practices.

The first research area is dealt with at the greatest length. Included in it is an extensive review of the literature on such topics as adoption, non-Native cross-cultural adoption, and the validity of psychological tests for Native

populations. Literature reviews were also carried out for the second and third research areas.

Based as they are on the expertise and advice of professionals and Native people, the research strategies detailed provide a first step for an investigation into the social and psychological effects of separating Native children from their family and culture. However, implementation of the project was not feasible because of the difficulties in getting agreement from the Native organization involved in developing the proposal.

AN ANALYSIS OF FOSTER CARE PRACTICE

Steven Levy and *Robert Coughlin*, The Levy-Coughlin Partnership (on behalf of MCSS)

Over the last decade, foster care has been characterized by a decline in available foster homes, especially for older children, coupled with an increase in the number of teenagers needing homes. The causes for this decline have not been well documented or confirmed through research. No information is available on how agencies organize and operate their foster care systems or on the practices associated with those systems. The present study was designed to explore and describe the foster care system in Ontario, and to extract the most successful practices and structures of existing services in order to develop a model of a more successful system.

The Research Advisory Committee and consultants for the study developed definitions, formulated goals for the major participants in the system (child, natural family, foster family, worker, and agency), and constructed operational concepts for each goal. The investigators based their determination of a successful as opposed to a less successful agency on these goals and operational concepts.

Thirty foster care delivery agencies were selected for inclusion in the study on the basis of size (large, medium, small), budget size (large, medium, small), budget status (surplus, deficit), geography (urban, rural), age of foster care program (evolving, established), and cultural representation (native Indian, English, French).

Data for the study were gathered from MCSS information systems, and agency service plans and quarterly reports. Interviews and self-report questionnaires were used to collect information directly from agency staff and foster parents.

The findings are presented in three compendiums of successful practices

related to each step in the foster care process: worker/agency, child/natural family, and foster family services. The investigators then integrate and organize these findings to produce their model of successful foster care organizations. For example, some of the critical clinical and administrative practices undertaken by agencies delivering successful foster care include a statement of goals, specification of outcomes, monitoring of achievements and outcomes, and assignment of resources. Other practices associated with successful foster care delivery are regular evaluations of staff performance, foster parents, training activities, and program effectiveness; recognition that clinical activities are specialized and assignment of the same worker to all child/natural family tasks and activities; and ongoing recruitment of foster parents and assignment of a specialized worker for recruitment.

The study is also helpful to agencies in that it points out some areas in which most can improve their practice (e.g., having and using written procedures, keeping adequate records).

Developmental Handicaps

AN INVESTIGATION OF OPTIMAL LEARNING CONDITIONS FOR EXCEPTIONAL CHILDREN (OMHF)

Robert M. Knights, Carleton University

Research concerning the effects of feedback on children's learning has suggested that some exceptional children do not respond to feedback in the same way as normal children, and are more sensitive to its effects. Since optimal training procedures for exceptional children might help to lessen their problems and the potential of their being a burden on social services, the present investigator proposed to determine the most effective type of feedback for slow learners, children with behavioural problems, and normal children of middle and low socioeconomic status. The investigator used a computer-aided learning approach, on the basis that an automated system provides an efficient means for presenting immediate feedback, for administering each learning task under variable feedback conditions, and for the automatic recording of learning data.

One hundred and twenty children were selected from two Ottawa public schools, one each in a middle and a lower socioeconomic area of the city. Three groups of 20 children each — normal, slow learning, and behavioural problem — were identified in each school. Subjects in the normal group were selected

by their Grade 4 and 5 teachers as being of average ability and with no history of behavioural problems. They were matched with those in the other two groups by age, sex, and grade level. Children in the slow learner group had either repeated a grade or were placed one year behind grade level for their age. The behavioural problem children were identified as such by their teachers, and this identification was confirmed by the children's rating on a conduct-problem scale. Mean IQ for the normal group was 114.1, for the slow learners 93.5, and for the behavioural problem group 109.4.

Three types of learning task of increasing complexity were used: paired associate learning, simple discrimination learning, and abstract concept learning. Each child was administered the tasks by means of a microcomputer. The children were randomly assigned to one of two types of feedback: motivational (the word "good" or "poor" appeared on the screen after each response) or informational (the word "right" or "wrong" appeared).

The investigator considers the study's most notable finding to be that, for all the groups, there were no differences in the effects of the two types of feedback. Although differences were found overall in the levels of performance of the various groups of children, both types of feedback appeared equally effective for each type of child and each type of task. This result is generally consistent with previous studies using computer-aided learning with learning disabled children. The investigator concludes that, by reducing differential feedback effects, computer-aided learning could play an important role in improving the learning capacity of these children.

DOWN'S SYNDROME: EFFECTS ON SIBLING AND PEER INTERACTION (OMHF)

Rona Abramovitch, Carl Corter, and *Debra Pepler,* Erindale College, University of Toronto

It is now being advocated that Down's syndrome infants be kept at home rather than in an institution, and a major concern for the parents is what effect this situation might have on their other children. The present investigators therefore proposed (a) to examine the interaction between Down's syndrome children and their non-handicapped siblings, and (b) to assess aspects of the non-handicapped siblings' social development by observing their interaction with their peers.

Subjects for the study were recruited through hospital infant stimulation

programs, community agencies, and schools in Metropolitan Toronto and Mississauga. Thirty-one pairs of siblings participated initially, and 20 were followed up. In families with more than two children, the non-handicapped sibling closest in age to the Down's syndrome child was the one included. At the time of first observation, the Down's syndrome children ranged in age from 18 months to 9.75 years; their siblings ranged from 12 months to 11 years.

Two phases of in-home observation were carried out approximately a year apart. In both phases, the siblings were observed during two one-hour visits a month apart. The observer used an audio cassette recorder to dictate a running description of the sibling interaction. The tapes were subsequently transcribed and coded for prosocial (e.g., comforting, sharing, helping), agonistic (e.g., aggressive, insulting, threatening), and imitative behaviours.

Since the wide age range of the non-handicapped children made seeing them in their various peer groups a difficult task, only the nine children in preschool or kindergarten were observed during free play at school. Each of these children was matched with two classmates by age, sex, and sibling status. All were viewed for 20 minutes one week apart, and their behaviour was recorded on a checklist.

For comparison purposes, the sibling pairs in this study were looked at in relation to normative pairs of children from the researchers' studies of sibling interaction among normal children. The two sets of pairs were matched according to the age of the non-handicapped sibling in the Down's syndrome pair and the age of the older sibling in the normative pair.

The findings indicate that, compared with their Down's syndrome siblings, the non-handicapped children were more active in terms of initiating prosocial and agonistic behaviour, and imitated less often. These behaviour patterns were even more pronounced when the handicapped child was younger than the non-handicapped sibling, and appeared to be consistent over time.

In terms of prosocial, agonistic, and play-related behaviours at school, there were no differences between the non-handicapped siblings and their peers.

When compared with the patterns of interaction of the normative sample, the patterns for the Down's syndrome siblings appeared to be similar. One difference was that the non-handicapped siblings showed more prosocial behaviours towards their handicapped sibling than did the normal older siblings towards their younger sibling. In other words, the sibling relationships of the Down's syndrome pairs were much like any sibling relationship and, if anything, were more positive.

Although the investigators caution that the findings reflect only overt interaction between siblings, they consider that this is an important aspect of everyday family life. In addition, the results relate only to children under 12 years of age.

Cognitive Development

THE EFFECTS OF EARLY DAMAGE TO THE BRAIN ON LANGUAGE AND OTHER COGNITIVE FACTORS (OMHF)

Maureen Dennis, The Hospital for Sick Children

The focus of this long-term investigation was the biological basis of communication and cognitive functions in children who suffered brain damage before birth, at birth, or early in life. Specifically, the study sought to determine how various developmental disorders of the brain affect children's acquisition of language, intelligence, verbal memory, and non-verbal skills. Previous work in this area has usually compared brain damaged children with adults who have aphasia (impaired ability to use words as symbols of ideas). In contrast, by performing parallel studies on normal and brain damaged children, the present research proposed to establish developmental hypotheses based on developmental data. The resulting information could help provide guidelines for assessing the abilities of brain damaged children, and assist parents, physicians, and educators in determining realistic behavioural and educational expectations for them.

The subjects of the study were brain damaged children, most of whom had been patients of the researcher. Information about the children's age, demography, and symptoms was derived from parental reports and medical records. Each child was categorized according to type of brain damage.

A considerable amount of data was collected, and analyses of some of the data are still continuing. The details and outcomes of the analyses performed are described in numerous reports by the researcher, and only a few examples are given here.

In order to provide a baseline of developmental data, 50 children from St. Leonard School in Toronto were selected to represent normal development on the following criteria: average intelligence on the basis of school records; academic performance in the middle 50% of class placement, i.e., in neither the top nor bottom 25% of the class; and English-speaking language history. All the children were righthanded. Ten children of each of five ages (six, eight, 10, 12, and 14) completed 55 language tests.

Before testing in the area of language began, the brain damaged children were given an IQ test. Those with a score below 70 were excluded from the testing. The final sample pool consisted of 302 children.

Comparisons of the data from the normal children with those from the various types of brain damaged children yielded some idea of what can be expected of children with specific impairment (e.g., congenital hydrocephalus

delays the acquisition of certain aspects of semantic development; children who have had a stroke that damaged the left hemisphere of the brain have more difficulties with linguistic fluency and sentence recall than those with damage to the right hemisphere). The results also show that cognitive breakdown is selective rather than global, i.e., although children may have a deficit in one area, their other abilities often remain intact.

With respect to the area of intelligence, the IQs of 407 brain damaged children were collected and analysed along with information on the medical aspects of each child (e.g., age at the time of brain damage, location of brain damage, symptoms) from birth to the time of IQ testing. The findings indicate that various medical aspects are important as predictors of the level of intelligence (e.g., delayed developmental milestones, brain abscesses or cysts, and paraplegia are predictors of low IQ). The researcher considers that these results underline the importance of seeing brain damage as the multifaceted condition it is.

Studies of the auditory memory abilities of brain damaged children were also carried out. Children with different types of brain damage showed a specific memory deficit, not just a general cognitive impairment (e.g., 26 children who had had their temporal lobe removed demonstrated poor memory that reflected simply limitations in memory span, discrimination sensitivity, and criteria for judging the prior occurrence of an event).

In sum, the researcher appears to have made a substantial contribution towards the understanding of the effects of early brain damage on cognitive functioning.

International recognition of the researcher's achievements has also recently occurred. She is the first recipient of the Benton Award, a mid-career prize of the International Neuropsychological Society.

Physical Disabilities

ASSESSMENT OF FEEDING THERAPIES: A MULTIDISCIPLINARY EVALUATION OF TREATMENT METHODS FOR SEVERELY DISABLED CHILDREN USING AN INNOVATIVE ASSESSMENT PROTOCOL (OMHF)

David J. Kenny, The Hospital for Sick Children, and *R. Moran* and *M. Milner*, The Hugh MacMillan Medical Centre (formerly, Ontario Crippled Children's Centre)

Individuals requiring feeding care are numerous and diverse, and many differ-

ent specialists (e.g., occupational therapists, nutritionists, nurses) have developed knowledge and experience in assisting them. To a large extent, the specialists' accumulated knowledge has remained within each specialty. In order to organize this knowledge into a clinically useful format, the present investigators proposed (a) to develop a standard protocol for assessing feeding disorders and (b) to use the protocol to obtain long-term profiles of patients with respect to treatment efficiency, oral-motor development, and dietary and nutritional status.

Over the period of a year, the Multidisciplinary Feeding Profile (MFP) and its companion manual were developed through the close co-operation of three specialists — an occupational therapist, a speech pathologist, and a paediatric dentist.

Refinements were made to the MFP on the basis of a pilot study with nine subjects who were dependent feeders. Each subject was rated once by each of the three specialists, for a total of 27 assessments. Twelve of the 27 assessments were also videotaped, so that an instructional video to accompany the MFP could be produced.

In a further study, 19 subjects were chosen at random from a population of children who were dependent feeders. These subjects were assessed by three new raters, chosen randomly from the same disciplines as the specialists who developed the MFP. Overall agreement among the raters was well within the standards set by other investigators.

Another pilot study, conducted with seven subjects over a six-month period, indicated that the MFP was sensitive enough to measure changes in feeding performance over time.

Work on the MFP is continuing, and a large-scale validation study is planned to test newly revised items. Conclusions about the final composition of the MFP will be made when the additional data analyses are performed. As it now stands, the MFP is the first statistically based protocol for the assessment of feeding problems of severely disabled children. The assessment can be completed in 30 to 45 minutes of clinic time using foods and materials available in any clinical setting.

Day Care

AN EXAMINATION OF THE CAPACITY OF SUPERVISED FAMILY DAY CARE TO ADEQUATELY SERVE SPECIAL NEEDS CHILDREN AND THEIR FAMILIES

Jim Albert, Carleton University, and *Christine Wihak*, Abt Associates

Given the scarcity of group day care spaces, there has been increasing pressure on supervised family day care (SFDC) agencies to accommodate children and families with a wide variety of special needs. The present study proposed to examine the capacity of SFDC programs to serve these individuals adequately. It aimed to explore the demands that special needs children place on the programs, and the programs' need for extra support and resources to ensure a stable, high quality day care service.

Two SFDC agencies in the Ottawa-Carleton area were selected for the study: Andrew Fleck Child Centre and Gloucester Family Day Care. At the time of the study (1980), these two agencies supervised over half the family day care placements in the area.

For the purposes of the study, "special needs" children and families were those who had been assessed by medical, school, or social services as requiring special help because of physical, mental, or social problems.

Two samples of children were drawn from the two SFDC agencies: 50 special needs children (randomly selected from the 67 so identified) and 50 non-special needs children (from the 300 so identified). Data were collected through interviews with the children's parents, caregivers, and all 14 of the agencies' home visitors.

Examination of the two groups of children in terms of child and family characteristics revealed few differences between the groups, except for a disproportionately greater number of boys (64%) in the special needs category. What all the children had in common was more obvious — of the 88 families in the study, 73 (83%) had only one parent and that parent was female. Ninety-eight per cent of the families had an income of less than $16,000.

In general, the parents of the special needs children did not appear to see their children as placing any more demands on them than did the parents of the non-special needs children. There appeared to be no overall differences in the way caregivers perceived the special needs or demands of the two groups. By contrast, when asked if any area of a child's physical, mental, or emotional development was of concern, the home visitors expressed concern for 90% of the special needs children as compared with 42% of the others.

Another finding was that the day care experience (e.g., types of care,

number of placements, length of time each day at caregivers) of both groups of children was similar, prior to and during the present arrangement.

One area in which the home visitor spent considerably more time for special needs children than for the others was in the home-finding phase of placement activities.

The investigators conclude by making several recommendations for the future development of supervised family day care (e.g., explore the nature of the label "special needs" and its use in relation to actual characteristics and behaviours of the children and families involved; recruit and train caregivers as regular day care employees, with adequate compensation and with the expectation that undivided attention will be given to the child).

A STUDY OF SERVICES FOR SPECIAL NEEDS PRESCHOOL CHILDREN IN METROPOLITAN TORONTO

Stephen Hagarty and *Arnold Love*, Community Concern Associates Ltd. (on behalf of MCSS)

During the last decade, numerous studies have emphasized the extent of young children's special needs in developmental, social-emotional, physical, or behavioural areas. A growing body of evidence has documented that the effects of special needs can be reduced, and potential handicaps often prevented, when these needs are identified early and given appropriate intervention. In the context of limited resources and increasing demand, the present project sought to increase the knowledge about services for special needs preschool children in Metropolitan Toronto, particularly those alternative services alleviating the demand for specialized treatment and care. The specific objectives of the study were to (a) review the literature pertaining to effective program activities, (b) develop definitions and a classification system for these children, (c) describe the social and mental health service delivery systems and their interaction, (d) describe the characteristics and needs of the children and their families, and (e) describe and evaluate alternative services offered. The study was designed to be a first step in developing an approach to systematic service delivery planning and resource allocation.

First, the researchers developed a definition of special needs and a modest classification system. Second, they reviewed the alternative program literature, predominantly that from 1978 to 1982. Third, they collected relevant data. Interviews were conducted with 31 service agencies (e.g., Children's Mental Health Centres, Mental Retardation Services, Specialized Day Care), and follow-up questionnaires were obtained from 29 of them. Of the 389 day care

centres and nursery schools in the area, 262 completed questionnaires and 304 were interviewed by telephone. Questionnaires were also completed by 245 of the 294 Metro Children's Aid Society workers.

The researchers point out that the limitations of the study (use of self-report data, constraints of the information systems in the organizations studied, and complexity of the alternative services network) preclude its being a scientific survey of the incidence of special needs preschool children in Toronto or a comprehensive overview of the entire range of alternative services available.

A child with special needs was defined as (a) a child who has requirements beyond those of a normally developing child, in one or more areas of physical, intellectual, communicational, or social and emotional development, when judged against developmental and community norms, and/or (b) a child who has increased vulnerability to environmental and nonenvironmental stresses, including those stresses related to family and social circumstances, to the extent that specialized programs or services may be required to ensure the child's adequate health and competence.

The literature review identified 15 types of alternative programs relevant to services used in Toronto. In general, studies of these programs did not compare the effectiveness or cost-effectiveness of the various approaches, or examine the long-term consequences of participation in the programs.

Interview and questionnaire data revealed that 1983 of the 2664 children served by the agencies (74%) were classified as having special needs — specifically, 96% of the children in Children's Mental Health Centres, 100% in Mental Retardation Services, 78% in Specialized Day Care, 63% in Day Care Initiative Programs, and 23% in other organizations. In day care centres and nursery schools, 1121 of 15,887 children (7%) were so classified; the rate in Metro Day Care Centres was 17% (428 of 2515).

The agencies offered 158 alternative programs: 98 centred on prevention, integration, and support to parents, teachers, and community, and 60 had a more remedial and therapeutic approach. In terms of focus, 75 programs were directed at parents, 39 at children, and only four at parent and child together. The largest numbers of alternative programs were provided through the Children's Mental Health Centres (51) and Specialized Day Care (45).

With respect to developing special needs programs, day care centres and nursery schools relied heavily on public health nurses, the MCSS day care consultant, major agencies and hospitals, and the board of education. They also drew on public health nurses frequently as participants in assessment and consultants in treatment planning and implementation. According to the responses received, 130 (43%) of these centres and schools lacked adequate programming and staffing to deal with special needs children.

Analysis of service system interaction revealed that it consisted primarily

of information sharing and joint case conferencing. This finding, together with that of the important role played by public health nurses and health sector agencies in general, leads the researchers to suggest that service delivery strategies and programming would be enhanced by greater co-ordination of health services with social services.

The study concludes with recommendations for planning (e.g., the encouragement of parent/child groups) and for further study (e.g., the extent to which alternative programs should be substitutional rather than supplemental).

A SURVEY OF PRIVATE-HOME DAY CARE PROGRAMS IN ONTARIO

Barry McPeake, PMA Consulting Group Ltd. (on behalf of MCSS)

The amendment in 1971 of the Day Nurseries Act allowed provincial cost-sharing of supervised private-home day care programs. These programs were seen as an alternative to group care, eligible for subsidy and subject to guidelines for standards of care. They were viewed as having the potential to provide, at a lower cost than centre-based care, more supervised care for infants, children in rural areas that could not accommodate a day care centre, and children of parents on shift work or extended hours. The present survey was undertaken in 1982 to provide an overview of the services and activities of private-home day care agencies, their staff and day care providers, along with their views and those of parents regarding these services and activities. The study was designed to serve as a foundation for any future evaluation of program effectiveness and impact. In addition, the study sought to determine the agencies' compliance with MCSS's proposed new private-home day care standards.

All thirty-nine agencies in Ontario were surveyed through on-site two- to four-hour interviews, a statistical sheet to collect basic quantitative information, and a documents checklist to identify policies and procedures included in MCSS's proposed standards.

So much information was collected by the study that only some examples of the overall picture are presented here.

At the time of the study, the agencies served 4962 children placed in 2152 providers' homes. Eighteen of the agencies were operated by municipalities, 14 by non-profit organizations, and seven by commercial operators. Of the children served, 4200 (84.6%) required some form of subsidy for their care. Over a quarter of the children (1359) were infants or toddlers and a quarter (1233) were of pre-school age. One hundred and seventy-nine (3.6%) were identified as hav-

ing a special need that placed additional demands on the provider; of this number, 56 had mental or physical handicaps.

Rates charged by the agencies varied, depending mostly upon the duration of the care and the services provided. Full-day care per child ranged from $10.00 to $14.00 per day, with the provider receiving from $7.00 to $11.25 of that amount and the agency from $1.00 to $5.00.

All agencies employed home visitors. Their duties included recruiting providers, matching and placing children with providers, and supporting and monitoring programs and providers through regular home visits. Some agencies also provided services such as training and program development.

On average, the providers cared for 2.3 agency-placed children, although a few were caring for more than the five recommended by the Day Nurseries Act.

Single-parent women who were employed part or full time were the main users of the agencies. The parents chose the agencies because subsidies were available and because they liked their children receiving supervised care in a home setting. They also appreciated the convenient locations of the homes.

In terms of the relationship between agency practices and MCSS policy, 33 of the 39 agencies documented or verbally confirmed that their practices corresponded with over 70% of the items in the proposed standards.

With regard to the future, agency directors indicated they would like to expand their programs in terms of coverage and quality of care, and to improve them financially and administratively.

Overall, this descriptive survey gives a detailed picture of private-home day care services that will be useful in a general planning context. As well, it suggests the potential for children with special needs to be integrated into this service system, and raises issues for MCSS's role in monitoring the system.

PRIVATE HOME DAY CARE PROVIDERS: AN ONTARIO SURVEY OF THEIR PERSONAL AND PSYCHOLOGICAL CHARACTERISTICS (OMHF)

Barbara M. Stuart, University of Guelph, and *Susan Pepper*, University of Western Ontario

Although the number of children in family or home day care far exceeds the number in day care centres, much less is known about the kind and quality of care that children receive in home settings. In Ontario, home day care for a fee is offered by supervised providers, who are affiliated with licensed private home day care (PHDC) agencies, and by unsupervised caregivers, whose only account-

ability is to parents rather than an agency. The present study proposed to gather information about the individuals providing home day care in order to determine which of their personal and psychological characteristics are related to provider competence. The first phase of the study examined supervised providers, and the second phase unsupervised caregivers (see the following summary, Informal Family Day Care: A Study of Caregivers).

Subjects for this phase of the study were 161 supervised day care providers from 19 PHDC agencies throughout Ontario. The providers completed three questionnaires to assess their personality, vocational interests, and attitudes towards day care children in terms of warmth and control. They also completed a fourth questionnaire to give biographical information and to describe their day care service and the children in care. Each day care home was observed for two to three hours by a home visitor (employed by PHDC agencies to support and monitor providers). The home visitor completed two scales, the Day Care Home Environment Rating Scale and the Home Visitor's Rating Scale (to rate the home's overall quality in relation to all other homes the visitor had known).

The findings indicate that the typical day care provider was a female anglophone high school graduate, married with two children, who had worked as a provider for 2.6 years. As a group, the providers appeared to be warm, nurturant, orderly people who offered good quality care. A higher level of day care quality was linked with those providers who showed greater intellectual curiosity and assertiveness and less traditional female vocational interests. The providers who were the most warm and most orderly were no more likely to be the very best providers than those who displayed these traits to a lesser degree. The investigators state that this finding may reflect the homogeneity of the sample or it may suggest that agencies should select providers first for warmth and orderliness and then for traits such as intellectual curiosity and assertiveness.

INFORMAL FAMILY DAY CARE: A STUDY OF CAREGIVERS (OMHF)

Susan Pepper, University of Western Ontario, and *Barbara M. Stuart*, University of Guelph

This study of unsupervised caregivers, whose only accountability is to parents rather than an agency, is the second phase of the investigation gathering information about the individuals providing home day care (see the previous summary, Private Home Day Care Providers: An Ontario Survey of their Personal and Psychological Characteristics). Because the willingness of unsupervised

caregivers to participate in research was unknown, a further purpose of this part of the study was to explore methods of recruiting participants.

The subjects of the study were 79 unsupervised caregivers recruited through advertising in two southwestern Ontario communities. The caregivers completed the same questionnaires, and were rated on the same scales, as the supervised providers.

The caregivers appeared to be remarkably similar to the more carefully selected providers in personality, vocational interests, attitudes, and background. Four notable differences emerged. Caregivers more often had postsecondary education (47% as compared with 24%). From descriptions of their occupational roles, caregivers seemed to regard themselves more as basic caretakers and less as educators. Caregivers were rated somewhat lower on measures of day care quality, although they appeared to offer an acceptable level of care. Among providers, higher quality care was related to personality characteristics and vocational interests rather than background factors; in contrast, the caregivers' quality of care tended to increase with their level of education, but was not related as clearly to personality or vocational interests. The investigators recommend that further research be carried out to determine whether the differences between the two groups reflect artifacts or actual differences.

With respect to recruiting unsupervised caregivers as participants in research, the investigators received 373 responses to their advertisements in a variety of formats (e.g., in local newspapers, on radio and cable television, on posters in supermarkets and libraries). A weekly advertising paper yielded by far the most respondents. The investigators state that the willingness of these individuals to participate suggests that a larger study of unsupervised family day care could be undertaken using similarly nonintrusive methods to locate participants.

Parenting

SUPPORT SERVICES FOR SINGLE ADOLESCENT MOTHERS IN ONTARIO

Harry MacKay, The Canadian Council on Social Development

The increasing number of adolescent mothers keeping their baby and remaining single prompted the present study, to determine the young mothers' needs for, and use of, community services.

The original research plan called for 250 mothers to be contacted through

hospitals to form a representative sample of single adolescent mothers in Ontario. Many hospitals were unwilling to co-operate, however, and, in those that did, the response rate was very low. The resulting small number of subjects limits the extent to which the findings can be generalized.

Interviews were conducted in the summer of 1981 with 87 single adolescent mothers in Ottawa, Toronto, Windsor, and Sault Ste. Marie. Information was obtained from them concerning their background, current situation, and perceived needs in the areas of income, housing, education, employment, mental and physical health, and child care.

Community Programs

A STUDY OF SERVICE DELIVERY MODELS FOR ISOLATED COMMUNITIES

Aldred Neufeldt, Sandra E. Leppan, Noel Thomas, and *Jack Santa-Barbara*, Applied Research Consulting House Ltd. (on behalf of MCSS)

The inaccessibility of sparsely populated areas in Northern Ontario complicates the delivery of social services. Since service delivery models used in larger urban communities are inappropriate for smaller remote communities, innovative models are currently being developed in Ontario and elsewhere. With reference to some of these innovative models, the present study proposed to identify the key elements of service delivery necessary to provide good quality social services to difficult-to-reach regions of the North.

Material for the study was gathered from a review of the literature and from on-site examination of several innovative service delivery models in Ontario, Quebec, and Saskatchewan. Three Northern Ontario models reviewed were the Sudbury-Algoma Community Mental Health Program, the Confederation College Community Development Program in Thunder Bay, and the James Bay Area Probation and After Care/Children's Aid Program.

The investigators divide the key service planning elements into four categories and discuss the considerations for each.

1. *Definitions:* Since some common terms are more helpful than others for planning purposes, agreement must be reached on those to be used. For example, "isolation" is a relative concept and one that seems to be used more by people from outside the community than those living in it. "Accessibility" is suggested as being more relevant and easily agreed upon by people within and without the community.

2. *Value Issues:* Ambiguity in what is valued tends to lead to unsatisfactory program planning and implementation. Clarification of value bases and related principles should be a first step in determining service implementation goals that are both desirable and feasible.

3. *Cornerstones for Planning Human Service Systems:* Accessibility of services, suitability of service catchment areas, and socioeconomic characteristics of communities are three areas that require special attention. How they are dealt with becomes the cornerstone to other, more operational, considerations.

4. *Operational Features:* Three major decisions must be made — the kind of service implementation model, the kind of personnel model, and the kinds of strategies for service co-ordination.

In terms of refining the planning process, the investigators identify key elements that might be pursued at local, area, and regional levels (e.g., developing service networks that take into account various geographical and social considerations; encouraging Northern universities and colleges to develop training programs suitable for Northern conditions).

A STUDY ON SOCIAL SERVICE PLANNING FOR BOOM/BUST COMMUNITIES

Aldred Neufeldt, Applied Research Consulting House Ltd. (on behalf of MCSS)

Northern Ontario contains a number of single industry resource towns that are vulnerable to major economic changes. An upswing in world demand or the finding of new resources may result in a economic "boom". A downturn of demand or a depletion of resources may result in a "bust". Both conditions can have a profound impact on resident families. The purpose of the present study was to gain knowledge on boom/bust phenomena in order to facilitate planning for efficient and effective delivery of services to children and families in these communities.

First, the literature was reviewed for existing knowledge on boom/bust phenomena and the provision of social services. Second, visits were made to five towns: one boom (Elliot Lake), three bust (Geraldton, Longlac, and Hearst), and one that appeared about to be a bust (Nakina). Interviews were carried out in each community with child and family service personnel, municipal and provincial government personnel, community leaders, and librarians.

The literature review indicated that there is considerable information avail-

able on boom towns, a lesser amount on bust towns, and very little on the role of social services.

In general, the investigator found that boom and bust situations are characterized by identifiable stages of development and by similar stress conditions. The way stress is experienced is complex and has different effects — stress motivates some people to action and causes others to break down. Strains develop on community and social services, particularly in boom towns, mostly because of inability to meet the rapid growth in demand. Although the research to date is only suggestive, it is estimated that about 5% to 10% of the people have most of the problems requiring extensive service intervention. Various helping networks emerge naturally (e.g., between relatives, neighbours), particularly in bust towns, and can be fostered.

The investigator proposes a number of planning elements to deal with boom/bust phenomena (e.g., develop a seasoned group of MCSS personnel to assist the communities with special needs that arise), but recommends that, because so little solid information is presently available, further research be undertaken in communities entering a boom or bust period. Changes over time could then be well documented.

Test Development/Assessment

AN EVALUATION OF THE MULTIDIMENSIONAL APTITUDE BATTERY WITH JUVENILE OFFENDER AND ADOLESCENT PSYCHIATRIC POPULATIONS (OMHF)

Douglas N. Jackson, University of Western Ontario

One of the most widely used tests for evaluating the cognitive functioning of juvenile offenders, adolescent psychiatric patients, and others requiring neuropsychological assessment is the Wechsler Adult Intelligence Scale (WAIS). Its use in Canada, however, is limited by the special training required to administer it, its being an individual test and thus time-consuming and expensive to administer and score, and its cultural bias against individuals not educated in the United States. Over a period of 12 years, the present investigator and his associates undertook the development of the Multidimensional Aptitude Battery (MAB), designed specifically to incorporate the desirable features of the WAIS and to eliminate its shortcomings. In the present study, the investigators aimed to confirm that the constructs assessed by the MAB are equivalent to those assessed by the WAIS-R (Revised Edition), through testing the two

batteries on parallel samples of adolescent offenders and control respondents. In an extension of the research, the investigators proposed to evaluate the comparability of computerized administration and standard administration of the MAB.

Ten of 11 subtests on the WAIS have counterparts on the MAB — the 11th is a memory test and not suitable for the MAB's multiple-choice format, which was designed to be suitable for group and automated administration. The MAB yields scores on the 10 subtests and on Verbal IQ, Performance IQ, and Full Scale IQ.

In order to evaluate the equivalence of the MAB and the WAIS-R, a sample of senior high school and university students was matched with a sample of young adult parolees and hospitalized psychiatric patients by social class background, education, and clinical status. Each individual was administered both batteries. The results indicate that the MAB has a reasonable correspondence with the WAIS-R. The test score equivalence between the two batteries also suggests that testers have another normative, multi-scale IQ measure that can be used for re-test purposes.

With respect to assessing computerized administration of the MAB, the Verbal scale was administered to 64 participants in both a paper-and-pencil format and a computerized format. There were no overall significant differences in performance, anxiety levels, or subjective reactions, and previous computer experience appeared to make no difference.

The investigators conclude from their initial evaluations that the MAB is a reliable, objectively scored, easily administered measure of adult intelligence.

MICROCOMPUTER-AIDED VERSUS MANUALLY ADMINISTERED PROCEDURES OF A VISUAL PERCEPTUAL MATCHING ASSESSMENT AND TRAINING TASK FOR MULTIPLY DISABLED CHILDREN (OMHF)

Jane Staub, The Hugh MacMillan Medical Centre (formerly, Ontario Crippled Children's Centre), *H. O'Beirne*, University of Toronto, and *S. McNaughton*, Blissymbolics Communication Institute

Considerable enthusiasm has been generated by the potentially significant role that microcomputers may play in education. The growing availability of devices that allow computers to be controlled by a single switch or even amplification of the electrical activity of a muscle suggests that computers may play a potentially significant role also in the assessment and training of children with

multiple disabilities. In order to assess how computers can and cannot aid these children, the present research was designed to compare the effectiveness of computerized and manual administrations of an assessment and training task.

Twenty-four non-speaking or verbally limited subjects with other developmental or physical disablities were selected from two schools — 15 from Bermondsey School for the Trainable Retarded in Toronto and nine from Princess Anne School for the Trainable Retarded in London. The subjects ranged in age from eight to 20 years. Most had at least some familiarity with Blissymbols, even if they did not use them for communication. All were examined by an opthamologist to check for adequate vision. The Leiter International Performance Scale was administered to determine the subjects' intellectual level and to ascertain that they could comply with the demands of the training task.

Three versions of a visual Perceptual Matching Task (PMT), developed at the Ontario Crippled Children's Centre, were used. One was a manual version, one was a passive computerized version, and the third was an active computerized version. The manual version required the subject to move six wooden blocks, each marked with a symbol, into six stalls marked with a matching symbol. In the passive computerized version, the blocks on the screen moved past the stalls and the subject used a single switch to enter a block into the appropriate stall. In the active version, the subject manoeuvred the blocks about the screen by means of one select and four directional switches. Three sets of symbols were used: Blissymbols, shapes used in Blissymbols, and shapes similar to either Blissymbols or letters.

Subjects were divided into three groups of eight subjects, with each group matched for mental age (range: zero to six years).

Significant differences were found in performances on the three versions of PMT, with the highest scores being obtained on the manual version and the lowest on the active computerized version. Another finding was that mental age was related to performance on all versions, that is, an increasingly higher mental age was required to do well on the manual, passive, and active versions respectively. With regard to the training necessary for each version, after three 45-minute training sessions, one subject still could not master the task in the manual version, three could not in the passive, and six could not in the active.

On the basis of these findings and their clinical observations, the investigators conclude that the performance differences were caused by the computer switches and their associated response strategies. They suggest that the particular technology used raises barriers that should, and can, be removed.

Anecdotal evidence is presented regarding the subjects' reactions to the computer. Although most appeared to be eager to work on it, a few withdrew or refused to use it. Also, subjects tended to be more distractible during the computerized tasks than during the manual one.

The investigators make several recommendations for future research. They suggest that, in order for PMT to become a general test of visual perception, it should be altered so that its relationship with intelligence is diminished. Also, work should be carried out to determine whether or not non-retarded subjects of comparable mental age have the same difficulties with the computerized versions of PMT. Such an investigation would help to pinpoint the source of performance failure.

Part II

LISTINGS

PRIMARY PREVENTION STUDIES

High Risk Infants

SURVEY AND EVALUATION OF INFANT STIMULATION PROGRAMS IN ONTARIO

SPONSORING ORGANIZATION
MCSS

PRINCIPAL INVESTIGATOR
John Renner

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Study Description

DURATION
October/81 — April/84

OBJECTIVES
To provide a descriptive survey of all infant stimulation programs in Ontario. To assess whether or not the service delivery mode used by programs is consistent with MCSS guidelines, which advocate using a mediator training model. To examine infants' scores on the Bayley Scales of Infant Development before and after a program. To explain the wide variation among programs in the cost per infant served.

POPULATION
Program directors and staff; developmentally disabled or environmentally deprived infants; their mothers

KEY FINDINGS

Phase I: In 1981, there were 40 programs, with 1570 active cases registered. The two major referral sources for programs were public health nurses and general practitioners. Of the 832 infants studied, 55% were developmentally disabled and 30% were environmentally deprived. The Bayley Scales were administered by about a third of the programs to infants entering the program, and by 73% of the programs every six months to monitor progress. Much information about the work with both infant and mother was not documented. Most programs had experienced significant staff turnover during the previous three years. *Phase II:* (a) In a study of six representative programs, observations during home visits with a worker revealed that the diagnostic category of the infant influenced worker behaviour, including mode of preparation for a visit, treatment during the visit, type of worker assigned to the case, and record-keeping. (b) Examination of infants' Bayley scores before and after a program showed that both sets of scores tended to be similar. Children with high initial scores tended to improve more than children with low initial scores. The majority of environmentally at risk infants scored in the normal range or above, and the majority of developmentally disabled infants in the lowest ranges. (c) Investigation of program costs revealed that salaries, staff travel, and purchased services accounted for 78% of the average program's costs. Client-staff ratios affected the cost per infant served, i.e., the fewer clients served by the more full-time staff, the higher the costs. The fact that hospitals paid higher salaries to staff and served fewer infants accounted for three-quarters of them showing greater costs than most other programs.

REPORTS/PUBLICATIONS

A.R.A. Consultants. A study of Bayley test scores before and after infant stimulation programming. 1984.

___. A study of infant stimulation program home visit practices. 1984.

___. Cost analysis for infant stimulation programs. 1984.

___. Survey of infant stimulation programs in Ontario. 1982.

TOTAL AWARD *$146,805*

LONG-TERM EFFECTS OF HOME INTERVENTION WITH HIGH RISK INFANTS AND THEIR PARENTS (OMHF)

SPONSORING ORGANIZATION
Chedoke-McMaster Hospitals

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Study Description

DURATION
April/83 — June/85

OBJECTIVE
To assess the long-term effects of (a) home intervention with pre-term and full-term infants and (b) home treatment for parents of infants considered at risk for developmental delay.

POPULATION
Pre-term infants, full-term infants, infants at risk for developmental delay; their parents

KEY FINDINGS
Forty-five pre-term and 22 full-term infants were followed up at 4.5 years of age. No significant differences on any of the standard developmental measures were found between the two control groups and the two groups who had experienced home intervention. Only those measures based on parental reports showed any differences (e.g., as compared with the mothers of children in the control groups, the mothers of children in the treatment groups perceived their children as having better expressive language and personal/social skills). The perceived differences also related to birthweight — the low birthweight children were thought to perform the poorest, particularly those who had had no intervention. Parents of a low birthweight child reported greater levels of stress than the other parents.

REPORTS/PUBLICATIONS
A report is in progress.

TOTAL AWARD *$59,261*

THE IDENTIFICATION OF THE "INVULNERABLE" HIGH RISK INFANT (OMHF)

SPONSORING ORGANIZATION
University of Western Ontario

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/82 —

OBJECTIVE
To identify the constitutional, parental, and community factors that contribute to optimum developmental outcome for low birthweight infants.

POPULATION
Low birthweight infants; their mothers

KEY FINDINGS
Although data analysis is still continuing, some preliminary conclusions are suggested: (1) Having a premature infant is very stressful for mothers. Seventy per cent of the mothers of well infants and almost all mothers of ill infants were scored as emotionally upset. The emotional support of family members is very important for the mothers. (2) Most low birthweight infants, including those of very low birthweight, appear to be functioning normally by 12 months of age. Only nine of the 150 infants had a clearly identifiable developmental handicap. (3) Differences in how critically ill infants were after birth are strongly related to differences in their intellectual functioning at one year of age. (4) Illness after birth, rather than prematurity per se, is related to developmental functioning at one year. (5) Quality of home environment makes a significant contribution to infant functioning at one year of age. This contribution is more important than such factors as social class or maternal education.

REPORTS/PUBLICATIONS

Pederson, D.R., Jenkins, S., Chance, G.W., Evans, B., and Fox, A.M. Maternal responses to preterm birth: The importance of family support. Research Bulletin 636, Department of Psychology, University of Western Ontario, Nov. 1985.

——. Maternal responses to the birth of a preterm infant. Presented at the biennial meeting of the Society for Research in Child Development, Toronto, Apr. 1985.

TOTAL AWARD *$110,378*

AN OUTCOME EVALUATION OF DIFFERENT INTERVENTION STRATEGIES WITH HIGH RISK PRESCHOOLERS (OMHF)

SPONSORING ORGANIZATION
Thistletown Regional Centre for Children and Adolescents

CO-OPERATING ORGANIZATION
The Hospital for Sick Children

PRINCIPAL INVESTIGATOR
Dr. Susan J. Bradley
The Hospital for Sick Children
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Study Description

DURATION
August/1982 — December/1984

OBJECTIVES
To provide an objective data base for preschool children referred for treatment. To evaluate the developmental and behavioural progress of children made through intensive and non-intensive treatment programs. To determine the characteristics of children who are best served by different types of treatment.

POPULATION
Preschool children with behavioural and developmental handicaps; children from community day care centres; their parents and teachers

KEY FINDINGS
The focus of the study was a therapeutic nursery school, the Thistletown Preschool Day Treatment Centre. Over an eight-month period, developmentally delayed children with normal non-verbal IQs made the greatest overall gains. Children with subnormal non-verbal IQs who were very developmentally delayed made few gains, and children with behavioural disorders showed little change. Parents of behaviourally disordered children, as compared with those

of developmentally delayed children, appeared to be less involved in their child's treatment.

REPORTS/PUBLICATIONS

Bradley, S.J., and Kolers, N. Outcome evaluation of therapeutic preschool program for delayed and disturbed preschoolers.

Cohen, N.J., Bradley, S., and Kolers, N. Building competence in delayed and disturbed preschoolers: Outcome evaluation of an intensive day treatment program. *Canadian Journal of Public Health*, Special supplement, Mar. 1986.

TOTAL AWARD *$92,228*

Parenting

FATHERS' REACTIONS TO THEIR NEW-BORN INFANTS AND THE BIRTH EXPERIENCE

SPONSORING ORGANIZATION
C.M. Hincks Treatment Centre

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/80 — June/85

OBJECTIVES
To determine birth-related factors that affect paternal attachment. To investigate the effect on this attachment of other variables such as father's personality and the marital relationship.

POPULATION
First-time fathers

KEY FINDINGS
The father's presence at the birth and his active participation in it were positive influences on his attachment. Medical interventions and the nature of the birth experience had a negative influence, although time alone with mother and child eased this effect somewhat. Positive relationships were found between father's attachment and strength of the marital relationship, both before and a year after the child's birth. Two paternal attachment scales developed for the study appear to have potential for use in future research.

REPORTS/PUBLICATIONS

Robson, B.E., and Mandel, D. Anticipatory and early responses to fatherhood. Presented at Research Day, Department of Psychiatry, University of Toronto, Sept. 1982.

___. Fatherhood and marital adjustment. Presented at the annual meeting, Canadian Psychiatric Association, Oct. 1983.

___. Marital adjustment and fatherhood. *Canadian Journal of Psychiatry*, Nov. 1984.

___. Paternal attachment. Presented at the American Orthopsychiatry meeting, Apr. 1984.

Robson, B.E., Mandel, D., and Marton, P. Paternal attachment and the birth experience.

TOTAL AWARD *$8200*

REDUCING THE STRESS OF NEW MOTHERHOOD (OMHF)

SPONSORING ORGANIZATION
Halton Family Services

CO-OPERATING ORGANIZATION
Oakville-Trafalgar Hospital

PRINCIPAL INVESTIGATOR
Amina Miller
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Study Description

DURATION
April/84 — March/86

OBJECTIVE
To examine an innovative approach to meeting new parents' needs for individualized support and information on parenting.

POPULATION
First-time mothers

KEY FINDINGS
Intervention through support by telephone and parenting skills classes produced no significant effects on the mothers in terms of reduction in stress or improved parental competence and knowledge.

REPORTS/PUBLICATIONS
Miller, A., Beltzner, E., Brown, N., and Rossi, V. Reducing stress in new motherhood. 1986.

TOTAL AWARD *$24,682*

THE LOW INCOME "SUPER COMPETENT" MOTHER: A STUDY OF 100 PARENTS

SPONSORING ORGANIZATION
McMaster University

PRINCIPAL INVESTIGATOR
Philippe A. Barrette
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Study Description

DURATION
April/80 –

OBJECTIVE
To compare the characteristics of low income mothers whose children appear to escape the harmful effects of poverty with the characteristics of low income mothers whose children do not appear to escape.

POPULATION
Low income mothers in public housing

KEY FINDINGS
Characteristics that the 32 super competent mothers (SCM) and the 31 other mothers (OM) appeared to share included little or no history of parental public assistance; parental marital separation; a belief in God; marital separation during pregnancy or within the subsequent two years; and an unsatisfactory relationship with the fathers of their children. In relation to the OM, the SCM tended to be separated less often from their parents before age 18 years; have parents of English Canadian ancestry; be older when they dated, married, or became pregnant; be employed more often; have a higher education; have fewer children; have a shorter history of public assistance; have more contact with their parents; and see themselves as more in control of their life.

REPORTS/PUBLICATIONS

Barrette, P.A. "The low income super competent mother" study. Interim report, Mar. 1986.

TOTAL AWARD *$40,861*

AN INVESTIGATION INTO THE USE OF FORMAL AND INFORMAL HELPING RESOURCES BY LOW INCOME FAMILIES

SPONSORING ORGANIZATION
The Dellcrest Children's Centre

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/80 — November/81

OBJECTIVES
To determine where parents living in a low income neighbourhood seek help for family-related concerns, and what factors influence those help-seeking patterns.

POPULATION
Low income English-speaking mothers in public housing

KEY FINDINGS
Median family income was $6000-$8000. On average, the women had lived in the neighbourhood for 5.8 years, and had 2.2 children. Sixty-three per cent were single parents, and 62% were unemployed. The country of birth was Canada for 42%, and the West Indies for 42%. As their major personal concern, 60% cited financial and employment problems, and 17% marital relationships. In the area of child-rearing, only 10% reported major difficulties. In general, the women's social networks provided them with emotional support, moderated their stress, and seemed to preclude their perceived need for professional help. The women had very little contact with any organizations, the main excep-

tions being the school and religious organizations.

REPORTS/PUBLICATIONS
Gottlieb, B.H., Carveth, W.B., and Shoom-Kirsch, D. An investigation into the use of formal and informal helping resources by low income families.

TOTAL AWARD *$42,232*

INTERVENING TO SUPPORT PARENTS IN HIGH RISK COMMUNITIES (OMHF)

SPONSORING ORGANIZATION
The Child in the City, University of Toronto

CO-OPERATING ORGANIZATION
Jane/Finch Community and Family Centre

PRINCIPAL INVESTIGATOR
Dr. Susan Hodgson
Community Policy Research Group
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Study Description

DURATION
April/80 — October/83

OBJECTIVE
To evaluate the Child/Parent Centre of the Jane/Finch Community and Family Centre.

POPULATION
Socially isolated mothers; support centre staff

KEY FINDINGS
The Centre has had success in implementing its model and achieving its objectives. The study demonstrated a relationship between unmet core needs and depression. Women in contact with the Centre had these needs reduced and depression thereby prevented. There was no clear evidence of prevention of physical illness. Benefits of women's contact with the Centre diffused to others through the women's community involvements. Targeting specific populations may not be an efficient way to reach isolated individuals in need. Having community involvement as an objective for women with young children may have unanticipated disruptive effects on their families.

REPORTS/PUBLICATIONS

Hodgson, S. Ill health as a function of not having needed social support: Reintroducing the person into the person environment equation. 1983.

—. The need for supportive communities in a time of restraint: An evaluation of the Child/Parent Centre of the Jane/Finch Community and Family Centre. 1983.

TOTAL AWARD *$93,762*

PEOPLE HELPING PARENTS: AN EVALUATION OF A PROGRAM DESIGNED TO REDUCE THE INCIDENCE OF SOCIAL AND EMOTIONAL PROBLEMS AMONGST SOCIALLY ISOLATED PARENTS (OMHF)

SPONSORING ORGANIZATION
The Dellcrest Children's Centre

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
March/83 — April/86

OBJECTIVE
To evaluate the People Helping Parents program, which incorporated an outreach approach and used trained volunteers to provide emotional support to the socially isolated parents of young children.

POPULATION
Socially isolated women

KEY FINDINGS
After participation in the program, 26 women showed evidence of an increase in their levels of social support (e.g., they expressed a greater feeling of support-related self-esteem) and indicated that they were more familiar with, and had used, community resources. They also reported experiencing better overall health. Comparisons were made between 10 women who received weekly home visits from their volunteer and 10 women who received weekly phone calls: the only difference between the groups was that those in the home visit group reported greater changes in their perception of available support for child-rearing.

REPORTS/PUBLICATIONS
A report is in progress.

TOTAL AWARD *$40,946*

ENHANCING PARENTAL COMPETENCIES: A COMPARATIVE EVALUATION OF TWO PREVENTION PROGRAMS FOR HIGH-RISK MOTHERS (OMHF)

SPONSORING ORGANIZATION
Sacred Heart Child and Family Centre

PRINCIPAL INVESTIGATOR
Gary Resnick

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Study Description

DURATION
April/81 — July/84

OBJECTIVE
To evaluate two programs designed to increase the parental competency of single mothers living on government assistance: a life-skills, esteem-building program and a program that combined these elements with direct parent skills training.

POPULATION
Single mothers of preschool-aged children; program leaders

KEY FINDINGS
Mothers showed no increase over time in their self-esteem and social supports. Although there was an indication that parents' rates of play and talk with their children increased, primary measures of parenting skills did not seem to be affected by the interventions. Overall, any changes noted were moderate and short term. There were no differences among the groups of mothers or their children with respect to longer-term reduction of emotional disturbance.

REPORTS/PUBLICATIONS

Resnick, G., and Chant, C. Enhancing parental competencies: A comparative evaluation of two prevention programs for high-risk mothers. 1984.

TOTAL AWARD *$58,612*

Community Outreach

EVALUATION OF THE POSITIVE PARENTING PROGRAM

SPONSORING ORGANIZATION
MCSS, Communications Branch

PRINCIPAL INVESTIGATOR
Dr. William D. Ratcliffe
Abraxas Research
21 Golfdale Road
Toronto, Ontario
M4N 2B5 Tel.: (416) 489-8686

Study Description

DURATION
July/80 — May/83

OBJECTIVES
To evaluate the Positive Parenting Program. The program's objectives were to foster a more positive emotional family environment for young children, and to teach and remind parents of basic child-rearing skills.

POPULATION
English-speaking parents of young children

KEY FINDINGS
Test market evaluation of a 19-week television commercial campaign in London indicated that mothers became increasingly aware of the commercials (from 10% of those surveyed at the beginning to 56% at the end). Changes in the desired direction were indicated in eight of nine of their parenting beliefs. Fifty-nine mothers (21% of the viewers of the campaign) reported they changed the way they dealt with their child as a result of seeing the commercials. Most mothers surveyed (747 of 900) reported problems with discipline as being the most difficult in dealing with their child. Evaluation of a modified province-wide campaign suggested similar results. MCSS received numerous requests for more information during the campaigns.

REPORTS/PUBLICATIONS

Ratcliffe, W.D., and Wittman, W.P. Parenting education: Test-market evaluation of a media campaign. 1983.

TOTAL AWARD *$45,000*

EVALUATION OF THE MONTROSE INFANT CARE CENTRE

SPONSORING ORGANIZATION
Toronto Board of Education

PRINCIPAL INVESTIGATOR
Dr. Frederic Weizmann

CONTACT PERSON
Martha Friendly
University of Toronto
Centre for Urban and Community Studies
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Toronto, Ontario
M5S 2G8 Tel.: (416) 978-6895

Study Description

DURATION
September/80 — May/84

OBJECTIVES
To evaluate the Montrose Infant Care Centre in Toronto. Montrose's objectives were, for the infants, to provide them with a stable environment and encourage their optimal development, and, for the mothers, to enable them to complete their education to the same level they could if they were not mothers; to acquire parenting knowledge and skills, and skills central to being a provider for a child; to reduce their rate of further pregnancy during participation in the project; and to increase their self-confidence and self-esteem, and develop necessary social service and personal supports.

POPULATION
Teenage mothers in school; their infants; teenage non-mothers in school

KEY FINDINGS
There were relatively few differences among the five groups of teenagers studied. About half of the 97 mothers lived with their own mother; a year later, 17 of 61 still did so. Also a year later, 16 of 19 mothers at Montrose, 11 of 12 at Victor Home, eight of 10 at Humewood House, five of 11 caring for their child at home,

and five of nine with other day care arrangements continued to be in school or planned to return. In terms of infant development, scores for 54 infants from all groups were within the normal range, and there were no significant declines since the initial testing.

REPORTS/PUBLICATIONS

Weizmann, F., Friendly, M., and Gonda, G. Interim report: Evaluation of the Montrose Infant Care Centre.

—. The Montrose Project: A comparative evaluation of a day care centre for the children of adolescent mothers.

TOTAL AWARD *$81,455*

EVALUATION OF PROJECT STAY HEALTHY EARLY

SPONSORING ORGANIZATION
Stay Healthy Early, Inc.

PRINCIPAL INVESTIGATOR
Dr. Alan G. Worthington
Community Mental Health Centre
Cobourg District General Hospital
P.O. Box 340
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K9A 4K9 Tel.: (416) 372-5879

Study Description

DURATION
January/81 — August/82

OBJECTIVES
To evaluate Project Stay Healthy Early in Peterborough. The project's objectives were to support pregnant teenagers and teenage mothers to enhance their developmental health and that of their infants.

POPULATION
Pregnant teenagers

KEY FINDINGS
Evaluation was not possible because of the project's early termination for lack of participants.

REPORTS/PUBLICATIONS
Worthington, A. Final evaluation report: Project S.H.E., Peterborough, Ont.

TOTAL AWARD *$19,941*

EVALUATION OF THE RESEAU PARENTS NETWORK PROJECT

SPONSORING ORGANIZATIONS
Centre de ressources de la Basse-Ville
Parent Preschool Resource Centre
Pinecrest-Queensway Community Service Centre

PRINCIPAL INVESTIGATOR
Arthur Stinson
Carleton University
School of Social Work
Ottawa, Ontario
K1S 5B6 Tel.: (613) 564-3677

Study Description

DURATION
October/80 — May/83

OBJECTIVES
To evaluate the Reseau Parents Network (RPN) project in Ottawa. RPN's objectives were to begin to develop a community-wide network of neighbourhood-based support programs for low income parents; to strengthen the ability of parents to deal with stress, enhance parent-child relationships, improve parents' self-image, and encourage better use of community resources; to develop a model for relationships between a central agency and community resource centres.

POPULATION
Low income parents; project staff

KEY FINDINGS
The four Pinecrest-Queensway programs appeared to be attracting and involving their intended population of low income, sole-support mothers. The Basse-Ville program seemed to be attracting a more middle-class group, and attendance tended to be low and sporadic. Participants rated the programs highly. On the basis of their observations, the evaluators consider that Pinecrest-Queensway succeeded as a prevention program and Basse-Ville did not; however, analysis of two participant variables — self-esteem and stress as a homemaker — showed no significant changes over time.

REPORTS/PUBLICATIONS

Lavoie, L., and Stinson, A. Final evaluation report of Reseau Parents Network Project. 1983.

TOTAL AWARD *$70,336*

EVALUATION OF THE NORTH EAST NEIGHBOURHOODS CENTRE

SPONSORING ORGANIZATION
Adventure Place

PRINCIPAL INVESTIGATOR
Dr. Richard Volpe
The Institute of Child Studies
45 Walmer Road
Toronto, Ontario
M5R 2X2 Tel.: (416) 978-3458

Study Description

DURATION
October/80 — May/83

OBJECTIVES
To evaluate the North East Neighbourhoods Centre (NNC) in North York. NNC's objectives were to enhance the quality of parent-child interaction and their sense of agency and competency; to increase teacher competencies and the quality of learning experiences for children; to facilitate the development of support networks among community residents; and to improve the community's ability to serve itself.

POPULATION
Mothers; teachers; home visitor; classroom consultants; local service agency staff

KEY FINDINGS
The typical parent user of NNC services was married, English-speaking, and middle class. Mothers' ratings of the home visitor program were positive initially and remained so. Mothers generally considered the drop-in centre programs to be excellent and stimulating for their children and themselves. The classroom consultation program appears to have reduced teachers' need for assistance. In general, local service agency staff stated that the NNC was a welcome addition to the community. Seventy-four of 90 staff who had taken part in development activity workshops rated them as good to excellent.

REPORTS/PUBLICATIONS

Volpe, R., and associates. The North East Neighbourhoods Centre: Final evaluation report. 1983.

TOTAL AWARD *$75,000*

EVALUATION OF THE CHILD CARE NETWORKS PROJECT

SPONSORING ORGANIZATION
Downsview Weston Action Community

PRINCIPAL INVESTIGATOR
Penny Lawler
The Lawler/Dean Partnership
81A Front Street East, 4th floor
Toronto, Ontario
M5E 1B8 Tel.: (416) 362-4800

Study Description

DURATION
November/80 — June/83

OBJECTIVES
To evaluate the Child Care Networks (CCN) project in northwest suburban Metropolitan Toronto. CCN's objective was to increase the child care support available for parents by creating ties between parents at the local neighbourhood level.

POPULATION
Low income parents; CCN workers

KEY FINDINGS
CCN workers undertook numerous outreach activities to establish contact with parents. On average, participant parents were female, 29 years old, and had two children. Thirty-four per cent were single parents, and 58% were born outside Canada. CCN appears to have developed networks in three of four neighbourhoods, although, rather than being just child care networks, they were a mixture of child care, social, and project activity links among local parents and caregivers.

REPORTS/PUBLICATIONS
Lawler, P. The role of the community worker with high stress/high need parents in the Child Care Network project.

—. Update on two neighbourhood networks in the Child Care Networks project.

Lawler, P., Dean, P., and McIntyre, E. An evaluation of the Child Care Networks project. Part I.

TOTAL AWARD *$114,000*

EVALUATION OF THE WESTVIEW COMMUNITY VENTURE

SPONSORING ORGANIZATION
Westview Community Venture Incorporated

PRINCIPAL INVESTIGATOR
Dr. Paul Craven
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Social Science Division
Ross Building, Room S759
North York, Ontario
M3J 1P3 Tel.: (416) 667-6274

Study Description

DURATION
March/81 — July/81

OBJECTIVES
To evaluate the Westview Community Venture (WCV) project in the Jane-Finch area of Metropolitan Toronto. WCV's objectives were to provide services to encourage community and parental involvement in programs provided at Firgrove Public School; develop nutrition, health, and recreation programs for children enrolled in the school; co-ordinate social services required by the children and their families; and assist in developing programs operated by the school to meet children's needs.

POPULATION
WCV staff; community residents; local service agency personnel; board of education officials and staff

KEY FINDINGS
After its first year of operation (1978-79), WCV expanded its base to encompass the whole Jane-Finch area, and placed increasing emphasis on a broad array of community support services. For example, WCV set up nutrition programs in two schools; played a principal role in organizing a community legal clinic; worked with three existing parent groups and organized new ones at three more schools; and supplied child care for a variety of programs so that mothers could participate.

REPORTS/PUBLICATIONS

Craven, P. Assessment report: Westview Community Venture. 1981.

TOTAL AWARD *$4050*

EVALUATION OF THE SUDBURY PRIMARY PREVENTION PROJECT

SPONSORING ORGANIZATION
Sudbury Algoma Hospital

PRINCIPAL INVESTIGATOR
Dr. John Lewko
Laurentian University
Department of Sociology
Sudbury, Ontario
P3E 2C6 Tel: (705) 675-1151

Study Description

DURATION
April/81 — Fall/83

OBJECTIVES
To evaluate the Sudbury Primary Prevention Project in Elliot Lake, Massey, Manitoulin Island, and near Espanola. The project's aims were to increase the coping skills of young parents; to provide structures for leisure activities for youth and improve coping skills for high risk teens; to overcome community resistance, develop a community support base, and reduce social stress in the community.

POPULATION
Anglophone, francophone, and native parents; anglophone youth, their parents; program staff; community leaders

KEY FINDINGS
In terms of the project's four parenting programs, improvement was indicated in most of the parent-child interaction areas for 70 anglophone parents in Elliot Lake. Positive change in these interaction areas was also suggested for 20 parents in Manitoulin Island and 42 francophone parents in Elliot Lake. Most of the 80 native parents near Espanola reported the workshop attended to be informative, to have met their needs as a parent, and to have improved their understanding of the topic covered. In terms of the project's youth program in Massey,

some improvements in youths' social skills appeared to have occurred. Both parents and community leaders tended to perceive the program positively.

REPORTS/PUBLICATIONS

Lewko, J., and Schwager, W. Final evaluators' report: Sudbury Primary Prevention Project.

TOTAL AWARD *$60,547*

EVALUATION OF THE HIGHLAND-STIRLING NEIGHBOURHOOD PROJECT

SPONSORING ORGANIZATION
Lutherwood Children's Mental Health Centre

PRINCIPAL INVESTIGATOR
Dr. Alan M. Cohen
152 Sherwood Avenue
London, Ontario
N6A 2E5 Tel.: (519) 681-6666

Study Description

DURATION
Winter/81 — Spring/83

OBJECTIVES
To evaluate the Highland-Stirling Neighbourhood Project in Kitchener; specifically, to determine whether or not a community development project could have an impact on participants' experience of social support and, ultimately, their psychological well-being. The project's aims were (a) to strengthen the collective capabilities of the neighbourhood in problem-solving and decision-making and to increase health-promoting forces in the neighbourhood and (b) to increase the interpersonal skills and social competence of pre-adolescents and adolescents.

POPULATION
Adolescents and adults in a socially disadvantaged neighbourhood

KEY FINDINGS
Although the participants were not wholly representative of the neighbourhood, the evaluators considered them to be an appropriate group. Changes in participants' well-being measured over time showed an increase in sense of mastery and a decrease in general psychological distress. Increases in levels of perceived social support and self-esteem, and a decrease in levels of depression, were also suggested. Although these changes could not be decisively attributed to program involvement, the evaluators discuss reasons for suggesting that they could be. Participants' attitudes before and after involvement were gener-

ally favourable towards the project and its goals. Most participants agreed that the programs made the community a better place to live and that some of the programs were helpful with real problems.

REPORTS/PUBLICATIONS

Cohen, A. Evaluation of the school consultation program at Courtland Senior Public School.

Turner, R.J., et al. The Highland-Stirling Neighbourhood Project: Evaluating program effects in the mental health domain.

TOTAL AWARD *$74,986*

EVALUATION OF THE CARIBBEAN OUTREACH PROGRAM

SPONSORING ORGANIZATION
Jamaican Canadian Association

PRINCIPAL INVESTIGATOR
Dr. Michael Efran
25 Wood Street, Suite 2106
Toronto, Ontario
M4Y 2P9 Tel.: (416) 593-8486

Study Description

DURATION
June/81 — May/83

OBJECTIVES
To evaluate the Caribbean Outreach Program (COP) in the Jane-Finch area of Metropolitan Toronto. COP's objectives were to provide parenting support, reduce the isolation of immigrant parents, and develop self-help groups; to develop links between family and school, and provide education about the school system and parent-child relationships in Canada; to offer upgrading classes for immigrant children; to establish links between the West Indian community and other ethnic groups for mutual understanding and sense of community.

POPULATION
Caribbean immigrant families; program staff; teachers

KEY FINDINGS
COP appeared to be reaching its intended population: almost all participants were born in the Caribbean, almost half were single parents, and only a quarter were employed full time. An on-going program difficulty was attracting and retaining participants. Those who did participate rated COP services well. Teachers were mixed in their ratings of the value of the upgrading course. Academic achievement and self-esteem appeared to improve for students in the upgrading course, as did health information for parents in the Family Life Education course.

REPORTS/PUBLICATIONS

Efran, M. Evaluator's report: Caribbean Outreach Program of the Jamaican Canadian Association. 1983.

TOTAL AWARD *$61,105*

Developmental Handicaps

THE SANFILIPPO SYNDROME: IMPROVEMENTS IN DIAGNOSIS AND PREVENTION (OMHF)

SPONSORING ORGANIZATION
The Children's Psychiatric Research Institute

PRINCIPAL INVESTIGATOR
Dr. Bruce A. Gordon
The Children's Psychiatric Research Institute
P.O. Box 2460
London, Ontario
N6A 4G6 Tel.: (519) 471-2540

Study Description

DURATION
April/82 — August/85

OBJECTIVES
To provide a procedure for an early and complete identification of children afflicted with Sanfilippo syndrome (SS). To develop a procedure to screen carriers of all forms of SS. To establish whether or not carriers have any ultrastructural tissue changes. To generate an antibody to the enzyme identified as lacking in type A SS patients.

POPULATION
Children with SS

KEY FINDINGS
Through complex biochemical analyses, the researchers appear to have made a substantial contribution to accurate diagnosis of SS and the differentiation of its four variants.

REPORTS/PUBLICATIONS
Gordon, B.A., and Brown, L. The high performance liquid chromatography of

disaccharides generated with the heparinase or heparitinase digestion of heparin or heparan sulfate. *Connective Tissue Research.*

Haust, M.D., and Gordon, B.A. Ultrastructural and biochemical aspects of the Sanfilippo syndrome — Type III genetic mucopolysaccharidosis. *Connective Tissue Research.*

___. Ultrastructural and biochemical aspects of the Sanfilippo syndrome — Type III genetic mucopolysaccharidosis. Presented at the IXth meeting, Federation of European Connective Tissue Societies, Budapest, Hungary, July 1984.

TOTAL AWARD *$92,439*

INCREASING SUPPRESSIVE AND EDUCATIVE EFFECTS OF POSITIVE PRACTICE OVERCORRECTION TREATMENT OF SELF-INJURIOUS BEHAVIOUR (OMHF)

SPONSORING ORGANIZATION
Surrey Place Centre

PRINCIPAL INVESTIGATOR
Dr. Maurice A. Feldman
Surrey Place Centre
2 Surrey Place
Toronto, Ontario
M5S 2C2 Tel.: (416) 925-5141

DURATION
April/84 —

OBJECTIVE
To evaluate the suppressive and the educative effects of positive practice overcorrection and other behavioural treatments for self-injurious behaviour in developmentally handicapped persons.

POPULATION
Developmentally handicapped persons

KEY FINDINGS
The study is still in progress.

REPORTS/PUBLICATIONS
Two reports are planned for fall 1986.

Feldman, M.A., Dalrymple, A.A., Cairns, C., Bell, J., and Sanders, E. Pica reduction by brief positive practice: Educative effects. Presented at the annual convention of the Association for Behavior Analysis, Columbus, May 1985.

TOTAL AWARD *$51,435*

Mental Health

ONTARIO CHILD HEALTH STUDY

SPONSORING ORGANIZATION
Child Epidemiology Unit, McMaster University

PRINCIPAL INVESTIGATOR
Dr. D.R. Offord
Child Epidemiology Unit, Chedoke Division
Chedoke-McMaster Hospitals
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L8N 3Z5 Tel.: (416) 521-2100

Study Description

DURATION
April/80 — March/86

OBJECTIVES
To gather information on the prevalence of childhood mental health problems. To identify risk factors and services being used. To recommend how programs could be developed to prevent childhood mental health problems.

POPULATION
Children aged four to 16 years from across Ontario

KEY FINDINGS
Over 18% of 3294 children surveyed had one psychiatric disorder or more. Conduct disorder was most frequent among adolescent boys (7.4%), hyperactivity among younger boys (10.1%), and neurosis and somatization among teenage girls (13.6% and 10.7% respectively). An unexpectedly high prevalence of neurosis was seen among young boys (10.2%). Children in urban areas tended to have a disorder more than children in rural areas. Environmental factors appearing to be most strongly associated with disorder were having a family that was functioning poorly, being on welfare, and living in subsidized housing. Although

children with a disorder were four times more likely than non-disordered children to have used a specialized mental health or social service in the previous six months, only one in six disordered children had done so in the same period.

REPORTS/PUBLICATIONS

Boyle, M.H., Byles, J.A., Offord, D.R., Crawford, J.W., Szatmari, P., Rae-Grant, N.I., Links, P.S., Cadman, D.T, and Stenerson, P.E. Ontario Child Health Study: Measurement of disorder.

Boyle, M.H., Offord, D.R., Hofmann, H.G., Catlin, G.P., Byles, J.A., Cadman, D.T., Crawford, J.W., Links, P.S., Rae-Grant, N.I., and Szatmari, P. Ontario Child Health Study: Methodology.

Cadman, D., Boyle, M.H., Offord, D.R., Szatmari, P., Rae-Grant, N.I., Crawford, J.W., and Byles, J.A. Chronic illness and disability in Ontario children: Findings of the Ontario Child Health Study.

Offord, D.R., Alder, R.J., Boyle, M.H., and Byles, J.A. The Ontario Child Health Study: Prevalence and selected correlates of conduct disorder.

Offord, D.R., Boyle, M.H., Szatmari, P., Rae-Grant, N.I., Links, P.S., Cadman, D.T, Byles, J.A., Crawford, J.W., Munroe Blum, H., Byrne, C., Thomas, H., and Woodward, C.A. Ontario Child Health Study: Correlates of disorder.

___. Ontario Child Health Study: Prevalence of disorder and rates of service utilization.

Ontario Child Health Study: Summary of Initial Findings. Toronto: Ontario Ministry of Community and Social Services, 1986.

Woodward, C.A., Boyle, M.H., Offord, D.R., Links, P.S., Cadman, D.T, Byles, J.A., Rae-Grant, N.I., Szatmari, P., Crawford, J.W., Munroe Blum, H., Byrne, C., and Thomas, H. Ontario Child Health Study: Correlates of utilization.

TOTAL AWARD *$470,000*

INTERVENTION EVALUATION STUDIES

Mental Health

ANALYSIS OF AN EXPERIMENTAL PROGRAM FOR AUTISTIC CHILDREN — PARENTAL AND PROGRAM CONSIDERATIONS

SPONSORING ORGANIZATION
The Geneva Centre for Autism, Communication and Language Disorders

PRINCIPAL INVESTIGATOR
Dr. Carolyn Lennox
The Geneva Centre
204 St. George Street
Toronto, Ontario
M5R 2N5 Tel.: (416) 968-7877

Study Description

DURATION
April/1980 — July/1981

OBJECTIVE
To determine the success of the Geneva Centre's programs, particularly the Changing Family Behaviour (CFB) program, by identifying the families who had benefitted from them and the reasons why.

POPULATION
Parents of autistic children

KEY FINDINGS
Parents rated the residential Summer School program, the home and school consultation Follow-Up (FU) program, and the parent education CFB program high in terms of usefulness and satisfaction, both in the short and long term. They rated their satisfaction as high for the Planning Language Change course,

but were mixed in their ratings of its usefulness. Parent training in the CFB program contributed to the value of FU. Parents indicated that different Centre programs met different needs. Parents who took CFB were more likely to continue using behaviour management techniques.

REPORTS/PUBLICATIONS

Lennox, C., and Leary, M.R. Analysis of a programme for autistic children — Parental and programme considerations.

TOTAL AWARD *$13,586*

ASSESSING STRESS, DIFFERENTIAL INVOLVEMENT, AND INTERVENTION IN FAMILIES OF AUTISTIC CHILDREN (OMHF)

SPONSORING ORGANIZATION
Clarke Institute of Psychiatry

PRINCIPAL INVESTIGATOR
Dr. M. Mary Konstantareas
Clarke Institute of Psychiatry
250 College Street
Toronto, Ontario
M5T 1R8 Tel.: (416) 979-6867

Study Description

DURATION
April/82 — June/85

OBJECTIVES
To assess the extent of stress on parents of autistic, learning disabled, or mentally retarded children, and on siblings of autistic children. To examine the levels of parental involvement in the care of autistic children.

POPULATION
Families with an autistic child; families with normal children; parents of learning disabled children; parents of mentally retarded children

KEY FINDINGS
Preliminary findings suggest that, for the autistic sample, mothers and fathers were equally stressed, and experienced more stress in rearing their children than did the control parents. The mothers of the autistic children were more involved with them than were the fathers, especially in terms of chore-type activities. The mothers were also more likely than the fathers to provide information about the children, to interact more with them, and to be more aware and realistic about the severity of their problems. For the learning disabled sample, the mothers were more stressed than the fathers, and the mothers of boys reported more stress than the mothers of girls.

REPORTS/PUBLICATIONS

Homatidis, S., and Konstantareas, M.M. Stress by mothers and fathers of learning disabled children. Presented at the Canadian Psychological Association Conference, Ottawa, June 1984.

Konstantareas, M.M. Stress and coping in parents of autistic children. Invited address at National Conference on Autism, Winnipeg, May 1985.

——. (Symposium moderator.) The challenge of raising developmentally delayed children. Canadian Psychological Association Conference, Ottawa, June 1984.

Konstantareas, M.M., and Homatidis, S. Differential involvement of mothers versus fathers of autistic children. Presented at the Canadian Psychological Association Conference, Ottawa, June 1984.

——. Ear infections in autistic and normal children. *Journal of Autism and Developmental Disorders*, in press.

——. Stress and differential parental involvement in families of autistic and learning disabled children. In E.D. Hibbs (Ed.), *Children and Families: Studies in Prevention and Intervention*. Washington: International Universities Press, in press.

——. Stress and differential parental involvement in families of autistic children. Presented at the World Conference on Infancy as Prevention, Athens, July 1984.

——. Symptom severity and stress reported by parents of autistic children.

——. The impact of an autistic child on his/her parents. Presented at the Society for Research and Child Development, Toronto, Apr. 1985. (A version of this paper was presented at the Canadian Academy of Child Psychiatry, Quebec City, Oct. 1985.)

Konstantareas, M.M., Hauser, P., Lennox, C., and Homatidis, S. Season of birth in infantile autism. *Child Psychiatry and Human Development*, in press.

TOTAL AWARD *$92,649*

MONITORING AND IMPROVING SERVICES MATCHED TO THE NEEDS OF EMOTIONALLY DISTURBED MENTALLY HANDICAPPED ADOLESCENTS

SPONSORING ORGANIZATION
J.D. Griffin Adolescent Centre
(formerly, North York Centre for Youth Services)

CO-OPERATING ORGANIZATION
The Dellcrest Children's Centre

PRINCIPAL INVESTIGATOR
Susan Mackle

CONTACT PERSON
Dr. Gerard Klein
J.D. Griffin Adolescent Centre
24 Silverview Drive
Willowdale, Ontario
M2M 2B3 Tel.: (416) 926-7688

Study Description

DURATION
April/1980 — May/1981

OBJECTIVES
Through evaluation of the Treatment for Youth and Resource Opportunities (TYRO) Program, to provide basic knowledge about the clinical characteristics and mental health needs of emotionally disturbed mentally retarded adolescents. To begin the process of identifying client, worker, program, and situational characteristics that promote the goals of social and vocational independence for these adolescents.

POPULATION
Adolescents referred to TYRO, their parents and teachers; TYRO staff

KEY FINDINGS
All adolescents referred to TYRO showed developmental lags and high levels

of emotional disturbance, except in the delinquency area. Adolescents selected for TYRO in-service treatment showed levels of developmental lag similar to the total referral group and more frequent and severe behavioural problems, suggesting that TYRO was reaching its target group. TYRO strategies appeared to be decreasing developmental lags in community and social skill areas, and making little change in levels of emotional disturbance. Over the four months of the study, 85% of the service goals for individuals were attained, as compared with 9% of the treatment goals.

REPORTS/PUBLICATIONS

Love, A.R. TYRO Program: Monitoring and improving services matched to the needs of emotionally disturbed mentally handicapped adolescents.

TOTAL AWARD *$29,611*

PARENT-THERAPIST PROGRAM/RESIDENTIAL TREATMENT FOLLOW-UP STUDY (OMHF)

SPONSORING ORGANIZATION
Chedoke Child and Family Centre

PRINCIPAL INVESTIGATOR
Dr. J.S. Rubenstein

CONTACT PERSON
Fran Pilon
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Chedoke-McMaster Hospitals
Box 2000, Station A
Hamilton, Ontario
L8N 3Z5 Tel.: (416) 521-2100

Study Description

DURATION
April/80 — January/86

OBJECTIVE
To compare the long-term effectiveness of three residential treatment programs — two traditional centres and one family-based alternative to residential care — on the academic, social, and emotional well-being of children with emotional and behavioural problems.

POPULATION
Emotionally and behaviourally disturbed children

KEY FINDINGS
Six years after discharge from a residential treatment program, 52 children ranging in age from 12 to 20 years were followed up. Seventeen had been in the Parent-Therapist (PT) program and the others in two treatment centres. All three groups appeared to be below average in reading, spelling, and arithmetic. A vast majority of the youths (41 of the 52) had had police contact after discharge, and about half had spent some time in jail. There were no significant differences in academic progress or social outcomes between the groups. With

respect to emotional health, five of the PT group and two of another had attempted suicide. All seven of these children had been discharged from residential treatment to their natural parents.

REPORTS/PUBLICATIONS

Martin, S. and Pilon, F. Longitudinal outcomes of children in residential treatment: Implications for methods of treatment and policy formation. 1986.

TOTAL AWARD *$40,000*

A COMPARISON OF TREATMENTS FOR CONDUCT DISORDERED ADOLESCENTS (OMHF)

SPONSORING ORGANIZATION
Thistletown Regional Centre for Children and Adolescents

PRINCIPAL INVESTIGATOR
Dr. Steven J. Stein
Thistletown Regional Centre
51 Panorama Court
Rexdale, Ontario
M9V 4L8 Tel.: (416) 741-1210

Study Description

DURATION
June/80 — December/84

OBJECTIVE
To examine three specialized treatment programs for conduct disordered youth, the first using a traditional token economy (TE) approach, the second a social learning approach, and the third focussing on cognitive behavioural therapeutic (CBT) techniques and philosophy.

POPULATION
Conduct disordered youths

KEY FINDINGS
Youths in the two programs examined (TE and CBT) and in a community comparison group were compared on several measures (including number of police contacts between discharge from the program and follow-up a year later). The TE and CBT programs were also examined from the point of view of treatment environment.

REPORTS/PUBLICATIONS
Stein, S.J. Evaluation of an adolescent treatment program: Some methodological issues. Presented at the annual meeting of the Canadian Psychological Association, Montreal, June 1982.

Stein, S.J., Berry, R., Keeling, K., and Dorosh, M. A comparison of treatments for conduct disordered adolescents.

Stein, S.J., Berry, R., Keeling, K., Dorosh, M., and Gibbons, C. Treating conduct disordered youth: Cognitive-behaviour therapy vs token economy. Presented at the 91st annual meeting of the American Psychological Association, Anaheim, Aug. 1983.

Stein, S.J., Keeling, K., Berry, R., and Sherman, P. Alternate treatments of antisocial adolescents. Symposium at the annual meeting of the Ontario Psychological Association, Ottawa, Feb. 1982.

Stein, S.J., Keeling, K., Dorosh, M., and Shamsie, S.J. Thistletown Adolescent Research Project — Phase 1. Symposium at the annual meeting of the Ontario Psychological Association, Toronto, Feb. 1981.

TOTAL AWARD *$135,922*

COST-EFFECTIVENESS ANALYSIS OF A DAY TREATMENT PROGRAM FOR EMOTIONALLY DISTURBED CHILDREN (OMHF)

SPONSORING ORGANIZATION
Niagara Child Development Centre

CO-OPERATING ORGANIZATIONS
Niagara South Board of Education
Lincoln County Board of Education

PRINCIPAL INVESTIGATOR
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CONTACT PERSON
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Study Description

DURATION
April/81 — April/86

OBJECTIVE
To compare the cost-effectiveness of four types of program for emotionally disturbed children: day treatment, behaviour adjustment classes in school, outpatient treatment, and assessment only.

POPULATION
Emotionally disturbed children; their parents and teachers

KEY FINDINGS
At the time of pretesting, the four groups of children were quite similar — they differed on only six of 28 measures. They did not appear to differ in most areas in the severity of their emotional-behavioural problems. At the point of discharge from the programs, the groups differed in only three of 28 measures (the

same areas of difficulty as at pretesting). With respect to treatment gains, six months after admission the children showed some gains on about half the measures, mostly in the areas of emotional adjustment and self-concept. There were no academic gains. The results at 12 months were almost identical to those at six months. Twelve months after discharge, the gains appeared to persist. Although any conclusions are limited by the fact that small sample sizes allowed analysis of follow-up testing for only the day treatment and behaviour adjustment groups, there appeared to be no clear superiority of one treatment mode over another.

REPORTS/PUBLICATIONS

Johnston, N.M., Cassie, J.R.B., and Hundert, J. Treating emotionally disturbed children: The question of cost-effectiveness. 1986.

TOTAL AWARD *$64,906*

CRISIS INTERVENTION SERVICES — HOME CARE AND INPATIENT: A COMPARISON (OMHF)

SPONSORING ORGANIZATION
Thistletown Regional Centre for Children and Adolescents

PRINCIPAL INVESTIGATOR
Dr. Steven J. Stein
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M9V 4L8 Tel.: (416) 741-1210

Study Description

DURATION
April/81 — October/84

OBJECTIVES
To provide information about the characteristics of the children and adolescents served by inpatient and by outpatient crisis intervention programs. To determine the effectiveness (in terms of cost and outcome) of the two treatment approaches.

POPULATION
Children aged four to 19 years

KEY FINDINGS
The demographic and behavioural characteristics are described of the 217 children who were treated in some way at Thistletown Regional Centre during the period from July 1980 through December 1982: 80 children in the Crisis Intervention Programme, 84 in the Crisis Home Care Service, and 53 receiving consultation or assessment.

REPORTS/PUBLICATIONS
Perlov, J., Berry, R., Stein, S.J., Weinstein, S., and Rose, E. A crisis intervention program for chronically disturbed children. Presented at the Canadian Psychiatric Association meeting, Winnipeg, Sept. 1981.

Stein, S.J., Berry, R.E., and Perlov, J. Crisis intervention services: A comparison of home care and inpatient treatment.

TOTAL AWARD *$21,603*

TEACHING RELAXATION TECHNIQUES TO CHILDREN WITH MIGRAINE AND MUSCLE CONTRACTION HEADACHES (OMHF)

SPONSORING ORGANIZATION
Children's Hospital of Eastern Ontario

PRINCIPAL INVESTIGATOR
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Children's Hospital of Eastern Ontario
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Ottawa, Ontario
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Study Description

DURATION
April/81 —

OBJECTIVES
To evaluate the use of relaxation training in reducing the intensity and frequency of children's migraine and muscle contraction headaches. To study the longer-term effects of such treatment. To explicate the nature of children's migraine headaches with reference to predictors of treatment success, predictors of compliance with behavioural regimes, personality correlates of migraine, and the validity of headache diaries.

POPULATION
Children with migraine headaches; their parents

KEY FINDINGS
Relaxation training reduced the intensity, duration, and frequency of headaches in children with more severe migraine; children with lower initial levels of migraine showed no real differences.

REPORTS/PUBLICATIONS
Cunningham, J., McGrath, P., Ferguson, B., D'Astous, J., and Latter, J. The childhood migraine personality. Presented at the annual meeting of the Canadian Psychological Association, Montreal, June 1982.

Gosselin, M., Firestone, P., McGrath, P., Cunningham, S.J., and Goodman, J.T. Compliance factors in the behavioral treatment of headaches in children and adolescents. *Journal of Clinical Child Psychology*, in press.

Gosselin, M., McGrath, P., Firestone, P., Cunningham, J., and Goodman, J.T. Compliance factors in the treatment of juvenile migraineurs. Presented at the annual meeting of the Canadian Psychological Association, Montreal, June 1982.

Gosselin, M., McGrath, P., Firestone, P., and Goodman, J.T. Compliance in pediatric migraine. Presented at the annual meeting of the Ontario Psychological Association, Toronto, Feb. 1983.

McGrath, P. Headache and tummyaches in children. Presented at the regional conference of the Association for the Care of Children's Health, Hamilton, Jan. 1983.

——. Migraine headaches in children and adolescents. In P. Firestone, P. McGrath, and W. Feldman (Eds.), *Advances in Behavioral Medicine for Children and Adolescents*. Hillsdale, N.J.: Lawrence Erlbaum Assoc., 1983.

——. Migraine headaches in children and adolescents: Behavioral therapy. Presented at the ambulatory rounds, Children's Hospital of Eastern Ontario, Ottawa, Nov. 1982.

——. Migraine in kids. Presented to the Psychology Department, Royal Ottawa Rehabilitation Hospital, Ottawa, June 1983.

——. Psychological therapy helps severe migraineurs. Presented to the Psychology Department, Royal Ottawa Psychiatric Hospital, June 1983.

——. Psychological treatment of migraine headache. Presented at the annual meeting of the College of Psychologists of New Brunswick, Apr. 1983.

——. Relaxation and cognitive therapy with children. Workshop presentation at the annual meeting of the College of Psychologists of New Brunswick, Apr. 1983.

——. Treatment of headache in children. Presented to the Ottawa Academy of Psychology, Nov. 1980.

——. Treatment of migraine headache in children. Presented at the 1982 Symposium on Professional Psychology: Pain and Pain Management, Saskatchewan, 1982.

McGrath, P., Firestone, P., Humphreys, P., and Goodman, J.T. Relaxation treatment of pediatric migraine. Presented at the Association for the Advancement of Behavioral Therapy, Los Angeles, Nov. 1982.

McGrath, P., Humphreys, P., Firestone, P., Goodman, J.T., Keene, D., and Richter, I. Psychological treatment of pediatric migraine. Presented at the 1st International Headache Congress, Munich, Sept. 1983.

McGrath, P., Humphreys, P., Goodman, J.T., and Firestone, P. The treatment of migraine in children. Presented at the annual meeting of the Canadian Psychological Association, Montreal, June 1983.

McGrath, P., Richardson, G., Humphreys, P., Keene, D., and Goodman, J.T. The measurement of headache pain. Presented at the 1st International Headache Congress, Munich, Sept. 1983.

Richardson, G., Cunningham, J., and McGrath, P. Inter-rater reliability in the measurement of the severity of headaches. Presented at the annual meeting of the Canadian Psychological Association, Montreal, June 1982.

Richardson, G., McGrath, P., Cunningham, J., and Humphreys, P. Validity of the headache diary for children. *Headache*, 1983, 23(4), 184-187.

Richter, I., Bartoli, E., Cunningham, J., Firestone, P., Goodman, J.T., and McGrath, P. The assessment of credibility in the behavioral treatment of migraine. Presented at the annual meeting of the Canadian Psychological Association, Montreal, June 1982.

Richter, I., McGrath, P., Humphreys, P.J., Goodman, J.T., Firestone, P., and Keene, D. Cognitive and relaxation treatment of pediatric migraine. *Pain*, in press.

Unruh, A., Cunningham, J., and McGrath, P. Children's drawings of their pain. Presented at the annual meeting of the Canadian Psychological Association, Montreal, June 1982.

Unruh, A., McGrath, P., Cunningham, S.J., and Humphreys, P. Children's drawings of their pain. *Pain*, 1983, 17, 385-392.

TOTAL AWARD *$74,694*

Developmental Handicaps

EVALUATION OF PROCEDURES TO ACCELERATE THE ACQUISITION OF GENERALIZED INSTRUCTION-FOLLOWING, IMITATION, AND SELF-HELP SKILLS IN DIFFICULT-TO-TEACH CHILDREN (OMHF)

SPONSORING ORGANIZATIONS
Surrey Place Centre
Huronia Regional Centre

CO-OPERATING ORGANIZATION
Durham Centre

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/82 — November/84

OBJECTIVE
To identify and evaluate techniques designed to increase the effectiveness of behaviour modification procedures with difficult-to-teach persons.

POPULATION
Developmentally disabled persons

KEY FINDINGS
One of the four studies carried out compared different prompting and correction procedures for teaching expressive sign language to non-communicative persons. Corrective practice, particularly when combined with graduated guidance prompting, appeared to accelerate 10 subjects' acquisition of signs.

REPORTS/PUBLICATIONS

Feldman, M.A., and Dalrymple, A.J. A multi-behavioral evaluation of prevocational training: Collateral effects. Presented to the Association for Behavior Analysis, Milwaukee, May 1982.

___. Comparison of prompting and correction procedures for teaching expressive sign language to developmentally disabled persons.

___. Effects of generalized instruction-following training on self-help performance. Presented to the Association for Behavior Analysis, Nashville, May 1984.

___. Effects of off-residence prevocational programming on the on-residence stereotypic behavior of institutionalized mentally retarded persons.

___. Teaching sign language to the developmentally disabled: The effects of positive practice. Presented to the Association for Behavior Analysis, Milwaukee, May 1983.

TOTAL AWARD *$29,372*

AVERSIVE AND EDUCATIONAL EFFECTS OF OVERCORRECTION AND CORRECTION PROCEDURES IN TRAINING PROGRAMS FOR SELF-CARE AND LANGUAGE SKILLS (OMHF)

SPONSORING ORGANIZATION
University of Western Ontario

CO-OPERATING ORGANIZATION
Surrey Place Centre

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/81 — October/83

OBJECTIVE
To investigate whether the effectiveness of correction procedures in behavioural training programs is attributable to the procedures' educational characteristics or to their aversiveness.

POPULATION
Developmentally handicapped children and adults

KEY FINDINGS
In one of several studies, five adults had object placement training. Positive practice with reinforcement added for correct performance, in comparison with positive practice alone, yielded faster training of the motor task and a faster reduction in stereotypic behaviour. There were also fewer undesirable side-effects with the reinforced procedure. In another study, six children had training in visual-motor tasks, and six children in self-care tasks. Training using stimulus shaping, as compared with training using standard prompting procedures,

required less time to learn the task, resulted in fewer errors, required fewer and less intrusive therapist's prompts, and resulted in more reinforcement.

REPORTS/PUBLICATIONS

Carey, R.G., and Bucher, B. Positive practice overcorrection: Effects of reinforcing correct performance. *Behavior Modification*, 1986, 10, 73-92.

—. Positive practice overcorrection: The effects of duration of positive practice on acquisition and response reduction. *Journal of Applied Behavior Analysis*, 1983, 16, 101-109.

Mosk, M.D., and Bucher, B. Prompting and stimulus shaping procedures for teaching visual-motor skills to retarded children. *Journal of Applied Behavior Analysis*, 1984, 17, 23-34.

TOTAL AWARD *$29,568*

BIOFEEDBACK TRAINING WITH RETARDED CHILDREN (OMHF)

SPONSORING ORGANIZATION
Ongwanada Hospital

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/80 — November/81

OBJECTIVE
To investigate the benefits of biofeedback procedures in the training of retarded children with multiple handicaps.

POPULATION
Children with developmental and physical handicaps

KEY FINDINGS
Biofeedback training appears to have been of some benefit for some of nine children tested. There appears to be no way at present of predicting which particular subjects are likely to benefit.

REPORTS/PUBLICATIONS
Derrick, N.E. Biofeedback training with retarded children. 1981.

TOTAL AWARD *$30,000*

EVALUATION OF FAMILY SUPPORT WORKER MODELS

SPONSORING ORGANIZATION
MCSS

PRINCIPAL INVESTIGATOR
Dr. Jack Santa-Barbara

CONTACT PERSON
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Policy and Program Development Division
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Study Description

DURATION
January/81 — January/82

OBJECTIVE
To evaluate the family support worker model as a means of co-ordinating support service delivery to families with developmentally handicapped children.

POPULATION
Staff of organizations offering the Family Support Worker (FSW) Program; family support workers; community workers in related agencies; parents served by FSW programs

KEY FINDINGS
Examination of seven organizations contracted to offer the FSW program revealed that the nature and characteristics of the host organization appeared to have major effects on the orientation of the program. While all organizations had some documented policies related to the program, overall there appeared to be a diversity and lack of specificity of objectives, as well as a gap between MCSS specifications and the actual practices occurring. Few of the intended components of the case management model were apparently being carried out

at the level or in the manner anticipated. With respect to client satisfaction, 70 of 84 parents interviewed were very satisfied with the quality of service provided by the family support worker.

REPORTS/PUBLICATIONS

Applied Research Consulting House Ltd. Evaluation report: Ontario Family Support Worker Program. 1982.

——. Key elements of a family support/case management model. 1982.

TOTAL AWARD *$49,975*

Physical Disabilities

AN ADDRESS TO THE PROBLEM OF DROOLING IN CEREBRAL PALSY THROUGH AN INVESTIGATION OF ORAL MOTOR FUNCTION AND ITS REMEDIATION (OMHF)

SPONSORING ORGANIZATION
The Hugh MacMillan Medical Centre
(formerly, Ontario Crippled Children's Centre)

PRINCIPAL INVESTIGATOR
Dr. David J. Kenny

CONTACT PERSON
Ruth Koheil
The Hugh MacMillan Medical Centre
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Toronto, Ontario
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Study Description

DURATION
April/82 — July/85

OBJECTIVES
To discern the oral motor factors that cause drooling, and the interrelationship between swallowing and drooling. To evaluate the effectiveness of treatment techniques aimed at teaching children with cerebral palsy to control their drooling rather than resorting to radical treatments such as surgery.

POPULATION
Children with cerebral palsy; normal children

KEY FINDINGS
Normal children maintained a very specific and minimally changing oral motor pattern during a swallow, and a significant degree of variation existed between individuals. Subconscious swallowing rates varied both within an individual between sessions, and between individuals. Children with cerebral palsy dem-

onstrated a swallowing reflex similar to that of the normal children, but a diminished ability to control the initial preparatory phase of the swallow. With respect to subconscious swallowing, the non-drooling cerebral palsy children swallowed at about 75% of the normal rate, and the children who drooled at 45% of the rate. After biofeedback training for control of the muscles around the mouth and training to increase the frequency of swallowing, there was a significant decrease in drooling rate and some increase in swallowing frequency. The decrease in drooling rate was attributed to better oral motor control after the biofeedback training.

REPORTS/PUBLICATIONS

Crysdale, W.S., Moran, R., Koheil, R., and Greenberg, J. Team evaluation and management of the drooling patient. Presented at 10th anniversary meeting of the Society for Ear, Nose, and Throat Advances in Children, Toronto, 1982.

Koheil, R., Sochaniwskyj, A., Bablich, K., Kenny, D., and Milner, M. An innovative approach to the remediation of drooling in cerebral palsy. *Book of Abstracts, IV World Congress of International Society for Prosthetics and Orthotics*, London, England, Sept. 1983.

—. An innovative approach to the remediation of drooling in cerebral palsy. Presented at the annual meeting of the Clinical Research Society of Toronto, Apr. 1983.

—. Biofeedback techniques and behavior modifications in the conservative remediation of drooling in children with cerebral palsy. *Developmental Medicine and Child Neurology*, in press.

—. Biofeedback techniques and behavior modifications in the conservative remediation of drooling in children with cerebral palsy. Proceedings of the 35th Annual Meeting of the American Academy of Cerebral Palsy and Developmental Medicine, Washington, D.C., 1984.

Koheil, R., Sochaniwskyj, A., Shein, R., Milner, M., and Kenny, D. An interdisciplinary approach to the problem of drooling in cerebral palsy. Presented at the 59th annual American Congress of Rehabilitation Medicine and 44th annual assembly of American Academy of Physical Medicine and Rehabilitation, Houston, Nov. 1982.

Sochaniwskyj, A. Koheil, R., Bablich, K., Milner, M. and Kenny, D. Oral motor functioning, frequency of swallowing, and drooling in normal and cerebral palsy children. *Archives of Physical Medicine and Rehabilitation*, in press.

TOTAL AWARD *$69,437*

Cognitive Development

A LONGITUDINAL ANALYSIS OF PROGRAMMATIC VARIABLES IN THE COGNITIVE, ACADEMIC, AND BEHAVIOURAL DEVELOPMENT OF LANGUAGE-DELAYED CHILDREN (OMHF)

SPONSORING ORGANIZATION
Chedoke Child and Family Centre

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Study Description

DURATION
April/81 —

OBJECTIVES
To conduct a long-term evaluation of the effectiveness of early intervention programs for children who begin to talk at a much older age than normal. To identify factors that predict later cognitive, academic, and behavioural difficulties for these children.

POPULATION
Language-delayed children; generally delayed children; normal children; their parents

KEY FINDINGS
(1) Comparison of language-delayed preschoolers in a classroom program with a control group of children on a waiting list for the program showed that both groups improved in language scores. Children in the treatment group demonstrated significantly greater gains in language comprehension. (2) A preschool language classroom program appeared to increase the social initiative and respon-

siveness of language-delayed children. A parent training program appeared to have a positive effect on parenting skills and child behaviour for both language-delayed and generally delayed children. (3) Compared with normal children, language-delayed children showed a marked lack of social initiative during interactions with their mother. Both groups of children were similar in their responsiveness to social interactions and their compliance during tasks. During peer interactions, language-delayed preschoolers showed less social initiative than normal preschoolers. (4) Preliminary analyses suggest that, while the prevalence of developmental learning disabilities among language-delayed children is relatively high, a significant number of the children are not experiencing academic difficulties.

REPORTS/PUBLICATIONS

Cunningham, C.E., Cataldo, M.F., Mallion, C., and Keyes, J.B. A review and controlled single case evaluation of behavioral approaches to the management of elective mutism. *Child and Family Behavior Therapy*, 1984, 5, 25-49.

Cunningham, C.E., Siegel, L.S., van der Spuy, H.I.J., Clark, M.L., and Bow, J. The behavioral and linguistic interactions of specifically language-delayed and normal boys with their mothers. *Child Development*, 1985, 56, 1389-1403.

Cunningham, C.E., Siegel, L.S., van der Spuy, H.I.J., Clark, M.L., Elbard, H., Neilson, B., and Richards, J. The effects of parent training, classroom, and community programs on the parent-child interactions, language, and cognitive development of language-delayed preschoolers. Presented at the Conference of the Association for the Advancement of Behavior Therapy, Washington, D.C., Nov. 1983.

Siegel, L.S., and Cunningham, C.E. Social interactions: A transactional approach with illustrations from children with developmental problems. In A. Doyle, D. Gold, and D.S. Moskowitz (Eds.), *Children in Families under Stress*. San Francisco: Jossey-Bass, 1984.

Siegel, L.S., Cunningham, C.E., and van der Spuy, H.I.J. Interactions of language-delayed and normal preschool boys with their peers. *Journal of Child Psychiatry and Psychology*, 1985, 26, 77-83.

van der Spuy, H.I.J., Cunningham, C.E., Siegel, L.S., Elbard, H., Neilson, B., and Richards, J. Evaluation of a treatment program for children with specific language delay. In H.D. Rosler, J.P. Das, and I. Wald (Eds.), *Mental and Language Retardation*. Berlin: VEB, 1983.

TOTAL AWARD *$112,108*

SPECIFIC READING DISABILITIES: AN INVESTIGATION OF SUBTYPES, REMEDIATION, AND OUTCOME (OMHF)

SPONSORING ORGANIZATION
The Hospital for Sick Children

PRINCIPAL INVESTIGATOR
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Toronto, Ontario
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Study Description

DURATION
April/81 — May/85

OBJECTIVE
To compare the effectiveness of three treatment approaches for helping children with different types of reading disability.

POPULATION
Children with reading disabilities

KEY FINDINGS
Children in three treatment programs (two experimental remedial and one alternative treatment control) showed improvement on most measures of reading and spelling acquisition. However, there were a number of generalized and treatment-specific effects for the remedial groups that were significantly greater than those for the control group (e.g., improvement in word recognition skills, contextual reading, oral vocabulary, and spelling pronounceable non-words, as well as in two non-reading measures — the rapid naming of letters and the blending of individual speech sounds). Several treatment-specific effects observed on the experimental tests were not replicated on the standardized tests purportedly measuring the same skills.

REPORTS/PUBLICATIONS
Lovett, M.W. A developmental approach to reading disability: Accuracy and speed criteria of normal and deficient reading skill. *Child Development*, in press.

—. A developmental perspective on reading dysfunction: Accuracy and rate criteria in the subtyping of dyslexic children. *Brain and Language*, 1984, 22.

—. An information processing approach to the classification of reading disabilities. Presented to the 89th annual meeting of the American Psychological Association, Los Angeles, 1981.

—. Patterns of figurative language development in normal and dyslexic children. Presented to the 90th annual meeting of the American Psychological Association, Washington, D.C., 1982.

—. Reading disabilities in childhood: A theoretically motivated approach to subtyping. Presented to the 42nd annual meeting of the Canadian Psychological Association, Toronto, 1981.

—. Reading skill and its development: Theoretical and empirical considerations. In G.E. MacKinnon and T.G. Waller (Eds.), *Reading Research: Advances in Theory and Practice*. Vol.3. New York: Academic Press, 1981.

—. Sentential structure and the perceptual span in normal reading development. *Journal of Psycholinguistic Research*, 1984, 13, 69-84.

—. Sentential structure and the perceptual spans of two samples of disabled readers. *Journal of Psycholinguistic Research*, 1986, 15, 153-175.

—. The reading processes of two subtypes of reading disabled children. Presented to the 91st annual meeting of the American Psychological Association, Anaheim, 1983.

—. The search for subtypes of specific reading disability: Reflections from a cognitive perspective. *Annals of Dyslexia*, 1984, 34, 155-178.

—, and Sutherland, D. Individual differences in the figurative language development of dyslexic children. Presented to the 43rd annual meeting of the Canadian Psychological Association, Montreal, 1982.

Lovett, M.W., Ransby, M.J., and Barron, R.W. Word type and subtype effects in dyslexic children's response to remedial treatment. Presented at the 12th annual meeting of the International Neuropsychological Society, Houston, 1984.

Lovett, M.W., Ransby, M.J., Hardwick, N., and Johns, M.S. Treatment-specific and generalized treatment effects in dyslexic children's response to remediation. Presented at the 13th annual meeting of the International Neuropsychological Society, San Diego, 1985.

Palmer, S.M., Barron, R.W., and Lovett, M.W. Varieties of reading disorders: Role of morphology and phonology. Presented to the biennial meeting of the Society for Research in Child Development, Detroit, 1983.

TOTAL AWARD *$154,284*

PATTERNS OF AUDITORY PERCEPTION SKILLS IN CHILDREN WITH LEARNING DISABILITIES: A COMPUTER ASSISTED APPROACH (OMHF)

SPONSORING ORGANIZATION
Children's Hospital of Eastern Ontario

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/81 — January/84

OBJECTIVE
To investigate the feasibility of using an easy to administer computerized system to identify learning disabled children.

POPULATION
Boys aged seven to 11 years

KEY FINDINGS
Two subtests of the Goldman-Fristoe-Woodcock Auditory Skills Test Battery — recognition memory and memory for content — successfully identified 92.5% of the learning disabled boys. However, since the same tests incorrectly categorized 35% of the control children as high risk, further research is required. Anecdotal evidence suggests that the general concept of computer aided presentation of assessment material may be a good one.

REPORTS/PUBLICATIONS
Pressman, D.E., Roche, D., and Firestone, P. Patterns of auditory perception skills in children with learning disabilities: A computer assisted approach. 1984.

TOTAL AWARD *$80,297*

Child Welfare

A PROPOSAL TO IMPROVE CAS WORKERS' EFFECTIVENESS IN DEALING WITH CHILDREN'S FEELINGS ABOUT SEPARATION

SPONSORING ORGANIZATION
University of Toronto

CO-OPERATING ORGANIZATIONS
Catholic Children's Aid Society of Metropolitan Toronto
Family and Children's Services of London and Middlesex

PRINCIPAL INVESTIGATOR
Dr. Sally E. Palmer
McMaster University
School of Social Work
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Study Description

DURATION
August/1980 — January/1983

OBJECTIVE
To develop, implement, and evaluate a program to improve Children's Aid Society (CAS) workers' effectiveness in helping children in foster care deal with their feelings about separation.

POPULATION
CAS workers; children in foster care; foster parents

KEY FINDINGS
With respect to children in care for less than a year, workers' CAS experience and prior separation training appeared to be positively associated with foster home placement stability, and separation training with children's reunion with

their family. The greatest difference between workers who had the separation training program and a control group who did not was in a higher rate of family reunion for the training group. The training program workers also reported more positive attitudes on the part of foster parents towards the natural parents. There were no differences between the two groups of workers in terms of placement stability. Factors identified as being associated with positive outcomes included workers' ability and readiness to discuss separation with children; increased awareness of their own and children's feelings about separation; and provision of a supportive environment.

REPORTS/PUBLICATIONS

Palmer, S.E. The effects of training on CAS workers' handling of separation. Doctoral thesis, University of Toronto, 1983.

___. Training child placement workers in effective handling of separation. *Ontario Association of CASs Journal*, Dec. 1982, 1-11.

TOTAL AWARD *$11,518*

CONCILIATION VS. CONSULTATION: OUTCOME OF CHILD-CUSTODY CONTESTS REFERRED TO A FAMILY COURT CLINIC (OMHF)

SPONSORING ORGANIZATION
Queen's University

CO-OPERATING ORGANIZATION
Family Court Clinic, Kingston General Hospital

PRINCIPAL INVESTIGATOR
Dr. John S. Leverette
Family Court Clinic
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Study Description

DURATION
April/81 — October/85

OBJECTIVE
To investigate the outcome of clinical intervention in child custody contests.

POPULATION
Families in child custody disputes

KEY FINDINGS
Considerable and continuing difficulties in recruiting subjects (only 17 families in total) meant that statistical analyses were not possible.

REPORTS/PUBLICATIONS
Leverette, J.S. Methodological problems in child custody research. Presented at the seventh annual Family Court Clinic Conference, London, Ont., May 1982.

TOTAL AWARD *$5075*

THE DEVELOPMENT AND SOCIAL BEHAVIOUR OF ABUSED AND CONTROL PRESCHOOL CHILDREN OVER THEIR INITIAL SIX MONTHS IN PUBLIC DAYCARE (OMHF)

SPONSORING ORGANIZATION
Rotary Creche Child and Family Clinic
(formerly, West End Creche Child and Family Clinic)

CO-OPERATING ORGANIZATION
Metropolitan Toronto Day Care Services

PRINCIPAL INVESTIGATOR
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Credit Valley Hospital
Department of Psychiatry
Child and Family Clinic
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Study Description

DURATION
April/82 — May/85

OBJECTIVE
To assess whether or not abused children's integration into regular day care centres helps to remedy any dysfunctional social behaviour exhibited by them.

POPULATION
Preschool children

KEY FINDINGS
Average intelligence scores for 28 abused children (88.1) were significantly lower than those for 28 control children (98.2). When observed during free play, the abused children spent on average 76% of their time in solo play, as compared with the control children's 66%. If solo play was interrupted, the abused children were more likely than the controls to resume playing alone. After six to nine months, the control children spent even more time in socializing (spend-

ing only 53% of their time in solo play), while the abused children showed little change (spending 79% in solo play). The sequences of solitary and social behaviours indicate that much of the abused children's problem appeared to occur in making a transition into social behaviour. Once positive social interaction began, the patterns of behaviour for the two groups were similar.

REPORTS/PUBLICATIONS

Hay, T.F., Thompson, M.G.G., and Marton, P. The development and social behaviour of abused and control preschool children over their initial six to nine months in public daycare.

——. Sequences of social behaviours in abused and non-abused preschool children in public daycare.

TOTAL AWARD *$52,205*

Juvenile Corrections and Detention

EVALUATION OF DURHAM REGION COMMUNITY SERVICE ORDER PROGRAM

SPONSORING ORGANIZATION
MCSS Southeast Region, Oshawa Probation and Aftercare Office

PRINCIPAL INVESTIGATOR
Dr. Anthony N. Doob

CONTACT PERSON
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Ministry of Community and Social Services
Probation Services
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Study Description

DURATION
August/82 — June/84

OBJECTIVES
To investigate how the community service order (CSO) program was perceived by the people affected by it and how it was viewed by the general public. To determine what effects the program had on the young offenders.

POPULATION
Young offenders; their parents; probation officers; CSO co-ordinator; community service agencies; the general public

KEY FINDINGS
Juvenile offenders receiving a CSO on their first court appearance were most likely to complete their CSO. The type of agency placement had no discernible effect on the likelihood of the CSO's completion. Most agencies felt they benefitted from the work carried out; some youngsters got jobs later at their place-

ment agency. Parents and juveniles generally expressed satisfaction with the experience and felt the youngster had benefitted. The general public was in favour of the idea of a CSO program. There were noted improvements in juveniles' work habits, as well as indications the program had a positive effect on the juveniles' behaviour.

REPORTS/PUBLICATIONS

Doob, A.N., and Macfarlane, N.D. The community service order for youthful offenders: Perceptions and effects. 1984.

TOTAL AWARD *$44,937*

OTHER STUDIES

Mental Health

A LONGITUDINAL STUDY OF DISTURBING AND NON-DISTURBING CHILDREN FROM PUBESCENCE INTO LATE ADOLESCENCE (OMHF)

SPONSORING ORGANIZATION
C.M. Hincks Treatment Centre

CO-OPERATING ORGANIZATION
Etobicoke Board of Education

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/80 — February/86

OBJECTIVES
To determine the areas of stability and change in adolescents' personality development. To establish the prevalence of disturbance in personality functioning in early, middle, and late adolescence. To identify, in pre-adolescence, risk and protective factors for behaviour and personality disorders later in adolescence.

POPULATION
Adolescents

KEY FINDINGS
Only initial findings from this eight-year study of 59 adolescents have been

presented. With respect to young adolescents (ages 12 to 14 years), the results indicate that they can be classified by their personality functioning: those without personality disturbance, those with some disturbance, and those with marked disturbance. Youngsters with each type of personality functioning differ in their clinical presentation, self-concept, and behaviour patterns. About half the young adolescents appear to be developing harmoniously; to varying degrees, the other half appear emotionally turbulent (i.e., anxious, depressed, angry) with poor self-concept and negative attitudes. The youngsters with markedly disturbed personality functioning (about 20% of the total sample) subdivide into two main groups — a larger group of tense, fearful, and inhibited individuals and a smaller group with antisocial features. Parents and teachers seem to easily recognize the disobedient ones, but have considerable difficulty in identifying the quietly disturbed.

REPORTS/PUBLICATIONS

Golombek, H., Marton, P., Stein, B., and Korenblum, M. A study of disturbed and non-disturbed adolescents: The Toronto Adolescent Longitudinal Study. *Canadian Journal of Psychiatry*, in press.

—. Personality functioning and disturbing behaviour in early adolescence. *Journal of the American Academy of Child Psychiatry*, in press.

Korenblum, M., Golombek, H., Marton, P., and Stein, B. The classification of disturbed personality functioning in early adolescence.

Marton, P., Golombek, H., Stein, B., and Korenblum, M. The relation of self concept and cognitive skills to personality functioning in early adolescence.

Stein, B., Golombek, H., Marton, P., and Korenblum, M. Personality functioning and clinical presentation in early adolescence. *Canadian Journal of Psychiatry*, in press.

TOTAL AWARD *$105,454*

THE SOCIAL AND SOCIAL-COGNITIVE SKILLS OF "SOCIALLY WITHDRAWN" PRESCHOOLERS AND KINDERGARTENERS: A LONGITUDINAL STUDY (OMHF)

SPONSORING ORGANIZATION
University of Waterloo

PRINCIPAL INVESTIGATOR
Dr. Kenneth H. Rubin
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Study Description

DURATION
April/80 — March/83

OBJECTIVES
To construct a behavioural profile of socially isolate preschool and kindergarten-aged children in order to ameliorate future social rejection and isolation. To examine whether or not children identified in kindergarten as isolates are less social and less popular with their peers in Grade 1 than are children identified in kindergarten as sociables.

POPULATION
Preschool, kindergarten, and Grade 1 children; Grade 1 teachers

KEY FINDINGS
Non-social behaviours of the preschool and kindergarten isolate groups were different, suggesting that criteria to identify isolate children should take developmental differences into account. Isolate and sociable behaviour in early childhood may be relatively stable phenomena.

REPORTS/PUBLICATIONS
Rubin, K. A longitudinal study of sociometric status in early childhood. Presented at the biennial meeting of the Society for Research in Child Development, Detroit, 1983.

—. An observational procedure for identifying socially withdrawn preschool and kindergarten children. Presented at the biennial meeting of the University of Waterloo Conference on Child Development, May 1982.

—. Child developmental theory, research, assessment, and intervention: A social competence perspective. Presented as part of a symposium on "Problem-solving Training: A Developmental Perspective" at the annual meeting of the Association for the Advancement of Behavior Therapy, Toronto, Nov. 1981.

—. Issues in "at risk" social development research. Invited conversation hour, Canadian Psychological Association, Montreal, 1982.

—. Non-social play in early childhood: Necessarily evil? Presented at the biennial meeting of the Society for Research in Child Development, Boston, Apr. 1981.

—. Non-social play in preschoolers: Necessarily evil? *Child Development*, 1982, 53, 651-657.

—. Preschool teacher ratings of behavioral problems: Behavioral, sociometric, and social-cognitive correlates. Presented at the annual meeting of the American Educational Research Association, New York, Mar. 1982.

—. Social and social-cognitive characteristics of young isolate, normal, and sociable children. In K.H. Rubin and H.S. Ross (Eds.), *Peer Relationships and Social Skills in Childhood*. New York: Springer-Verlag, 1982.

—. Stability and correlates of observed isolate behavior in early childhood. Presented at the biennial meeting of the Society for Research in Child Development, Detroit, 1983.

—. The private speech of preschoolers who vary with regard to sociability. Presented at the annual meeting of the American Educational Research Association, New York, Mar. 1982.

—, and Borwick, D. The communicative skills of children differing with regard to social status. In H.E. Sypher and J.L. Applegate (Eds.), *Understanding Interpersonal Communication*. Beverly Hills: Sage Publications, 1983.

Rubin, K., and Clark, M.L. Preschool teachers' ratings of behavioral problems: Observational, sociometric and social-cognitive correlates. *Journal of Abnormal Child Psychology*, 1983, 11, 273-286.

Rubin, K., and Daniels-Beirness, T. Concurrent and predictive correlates of sociometric status in kindergarten and grade one children. *Merrill-Palmer Quarterly*, 1983, 29, 337-351.

—. Social competence in popular and unpopular children: Do children do what they say they will do? Presented at the annual meeting of the Canadian Psychological Association, June 1982.

—. Social problem-solving in preschoolers: A behavioural assessment. Presented at the biennial meeting of the University of Waterloo Conference on Child Development, May 1982.

—, and Hayvren, M. Social and social-cognitive correlates of sociometric status in preschool and kindergarten children. *Canadian Journal of Behavioural Science*, 1982, 14, 338-349.

Rubin, K., Freire, M., and Hayvren, M. Dyadic free play behaviors of sociometrically popular and unpopular preschoolers. Presented at the annual meeting of the Canadian Psychological Association, Toronto, June 1981.

Rubin, K., Hayvren, M., and Daniels-Beirness, T. Differentiating among popular, average, and unpopular children: Can discriminant function analysis give us new information? Presented at the biennial meeting of the University of Waterloo Conference on Child Development, May 1982.

TOTAL AWARD *$47,413*

AN EVALUATION OF ACHENBACH'S CHILD BEHAVIOR CHECKLIST IN THE SCREENING, PLACEMENT, AND EVALUATION PROCEDURES OF A CHILD WELFARE AGENCY (OMHF)

SPONSORING ORGANIZATION
Ottawa-Carleton Children's Aid Society

CO-OPERATING ORGANIZATIONS
Carleton University
Royal Ottawa Hospital

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/82 —

OBJECTIVE
To evaluate the usefulness of the Achenbach Child Behavior Checklist in assisting child welfare agency staff with the assessment and placement of children coming into care.

POPULATION
Children in care; agency staff

KEY FINDINGS
The study is still in progress.

REPORTS/PUBLICATIONS
A report is expected June/86.

TOTAL AWARD *$96,898*

Child Welfare

THE IMPACT OF EXPOSURE TO MARITAL VIOLENCE ON CHILDREN'S ADJUSTMENT (OMHF)

SPONSORING ORGANIZATION
University of Western Ontario

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/83 — April/85

OBJECTIVES
To determine the effects of marital violence on the social and behavioural development of children. To focus on children's social supports within and outside the family to determine what factors assist children's adjustment to marital violence.

POPULATION
Mothers and children who have resided in shelters for abused women; mothers and children from non-violent families

KEY FINDINGS
There were few significant differences in social competence and behavioural problems between girls from violent and non-violent families. Boys from violent families had less social competence and more behavioural problems than boys from non-violent families. Behavioural problems for children from both types of family appeared to be strongly associated with maternal adjustment and amount of physical aggression in the home. Mothers who reported fewer symptoms and changes in their own functioning were more likely to report fewer child behavioural problems as well.

REPORTS/PUBLICATIONS

Jaffe, P., Wolfe, D.A., and Wilson, S.K. Children's adjustment to marital violence.

—, and Slusarczyk, M. Similarities in behavioral and social maladjustment among child victims and witnesses to family violence. *American Journal of Orthopsychiatry*, 1986, 56, 142-146.

Jaffe, P., Wolfe, D.A., Wilson, S.K. and Zak, L. Emotional and physical health problems among battered women. *Canadian Journal of Psychiatry*, in press.

—. Family violence and child adjustment: A comparative analysis of girls' and boys' behavioral symptoms. *American Journal of Psychiatry*, 1986, 143, 74-77.

Wolfe, D.A., Jaffe, P., Wilson, S.K., and Zak, L. Children of battered women: The relation of child behavior to family violence and maternal stress. *Journal of Consulting and Clinical Psychology*, 1985, 53, 657-665.

—. Predicting children's adjustment to family violence: Beyond univariate analyses. Presented at the second Family Violence Research Conference, University of New Hampshire, Aug. 1984.

—. The impact of family violence on child and maternal adjustment.

—. The impact of family violence upon children's adjustment. Presented as part of the symposium "Impact of marital and family violence on children in shelters" at the annual meeting of the American Psychological Association, Toronto, Aug. 1984.

Wolfe, D.A., Zak, L., Wilson, S.K., and Jaffe, P. Child witnesses to violence between parents: Critical issues in behavioural and social adjustment. *Journal of Abnormal Child Psychology*, 1986, 14, 95-104.

TOTAL AWARD *$86,340*

SOCIAL AND PSYCHOLOGICAL EFFECTS ON NATIVE CHILDREN OF SEPARATION FROM FAMILY AND CULTURE (OMHF)

SPONSORING ORGANIZATION
York University

CO-OPERATING ORGANIZATION
Indian Social Services Council

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/83 — March/84

OBJECTIVE
To investigate the feasibility of researching the social and psychological effects of separating Native children from their family and community.

PROPOSED POPULATION
Native and non-Native families

KEY FINDINGS
An outline is presented of a framework and methodology options to examine from various aspects the impact of separation. Five research areas, each involving a different research approach, are detailed: (1) the social and psychological effects of separation from family and culture; (2) the impact of removal of the Native child on Native families and community; (3) a comparative analysis of Native and non-Native interventions by the Children's Aid Society; (4) a study of non-Native families with adopted Native children; and (5) traditional child welfare practices. Reviews of the literature are included for the first three research

areas. Implementation of the project was not feasible because of the difficulties in getting agreement from the Native organization involved in developing the proposal.

REPORTS/PUBLICATIONS

York University Native/Canadian Relations Theme Area. Feasibility report on the social and psychological effects of separation from family and community on native children: A research proposal.

TOTAL AWARD *$42,109*

AN ANALYSIS OF FOSTER CARE PRACTICE

SPONSORING ORGANIZATION
MCSS, Operational Support

PRINCIPAL INVESTIGATORS
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Study Description

DURATION
September/1981 — August/1984

OBJECTIVES
To explore and describe the foster care system in Ontario. To extract the most successful practices and structures of existing services in order to develop a model of a more successful system.

POPULATION
Foster care agency staff; foster parents

KEY FINDINGS
Three compendiums are presented of successful practices related to each step in the foster care process: worker/agency, child/natural family, and foster family services. These practices are integrated and organized to produce a model of successful foster care organizations. For example, all successful agencies state their goals, specify outcomes, monitor the achievement of goals and outcomes, and assign resources; they evaluate staff performance, foster parents, training activities, and program effectiveness; they assign specialized workers to all child/natural family tasks and activities and to all foster care responsibilities; they recruit foster parents on an ongoing basis.

REPORTS/PUBLICATIONS

The Levy-Coughlin Partnership. An analysis of foster care practice in Ontario: Full research report. 1984.

——. Foster care research summary: An analysis of foster care practice and structure in Ontario. 1984.

TOTAL AWARD *$170,008*

Developmental Handicaps

AN INVESTIGATION OF OPTIMAL LEARNING CONDITIONS FOR EXCEPTIONAL CHILDREN (OMHF)

SPONSORING ORGANIZATION
Carleton University

CO-OPERATING ORGANIZATIONS
Children's Hospital of Eastern Ontario
Carleton Board of Education
Ottawa Board of Education

PRINCIPAL INVESTIGATOR
Dr. Robert M. Knights
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Department of Psychology
Ottawa, Ontario
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Study Description

DURATION
April/80 — February/82

OBJECTIVE
To determine the most effective type of feedback for slow learners, children with behavioural problems, and normal children of middle and low socioeconomic status.

POPULATION
Grade 4 and 5 children

KEY FINDINGS
For all groups of children, there were no differences in the effects of motivational or informational feedback. Although differences were found overall in the levels of performance of the groups, both types of feedback appeared equally effective for each type of child and each type of task. This result is generally

consistent with previous studies using computer-aided learning with learning disabled children.

REPORTS/PUBLICATIONS
Knights, R.M. An investigation of optimal learning conditions in exceptional children.

TOTAL AWARD *$37,026*

DOWN'S SYNDROME: EFFECTS ON SIBLING AND PEER INTERACTION (OMHF)

SPONSORING ORGANIZATION
Erindale College, University of Toronto

PRINCIPAL INVESTIGATOR
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Centre for Research in Human Development
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Study Description

DURATION
April/81 — September/85

OBJECTIVES
To examine the interaction between Down's syndrome children and their non-handicapped siblings. To assess aspects of the non-handicapped siblings' social development by observing their interaction with their peers.

POPULATION
Down's syndrome children; normal children

KEY FINDINGS
Compared with their Down's syndrome siblings, the non-handicapped children were more active in terms of initiating prosocial and agonistic behaviour, and imitated less often. These behaviour patterns were even more pronounced when the handicapped child was younger than the sibling, and appeared to be consistent over time. In terms of prosocial, agonistic, and play-related behaviours at school, there were no differences between the non-handicapped siblings and their peers. When compared with the patterns of interaction of normative pairs of children, the patterns for the Down's syndrome siblings appeared to be mostly similar.

REPORTS/PUBLICATIONS
Abramovitch, R., Stanhope, L., Pepler, D., and Corter, C. The influence of Down's syndrome on sibling interaction.

TOTAL AWARD *$81,645*

Cognitive Development

THE EFFECTS OF EARLY DAMAGE TO THE BRAIN ON LANGUAGE AND OTHER COGNITIVE FACTORS (OMHF)

SPONSORING ORGANIZATION
The Hospital for Sick Children

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/81 — December/85

OBJECTIVES
To determine the effects of early brain damage on children's acquisition of language, intelligence, verbal memory, and non-verbal skills. To establish developmental hypotheses based on developmental data.

POPULATION
Children with brain damage; normal children

KEY FINDINGS
Only a few examples of the many findings are cited here. In the area of language, comparisons of data from normal children with those from various types of brain damaged children yielded some idea of what can be expected of children with specific impairment. Cognitive breakdown appears to be selective rather than global, i.e., although children may have a deficit in one area, their other abilities often remain intact. With respect to intelligence, various medical aspects are important as predictors of level of intelligence. In terms of auditory memory ability, children with different types of brain damage showed a specific memory deficit, not just a general cognitive impairment.

REPORTS/PUBLICATIONS

Dennis, M. Intelligence after early brain injury I: Predicting IQ scores from medical history variables. *Journal of Clinical and Experimental Neuropsychology*, 1985, 7, 526-554.

___. Intelligence after early brain injury II: IQ scores of subjects classified on the basis of medical history variables. *Journal of Clinical and Experimental Neuropsychology*, 1985, 7, 555-576.

___. Language after damage to the immature brain. In G. Adelman (Ed.), *Encyclopedia of Neurosciences*. Boston: Birkhauser, in press.

___. Language in a congenitally acallosal brain. *Brain and Language*, 1981, 12, 33-53.

___. Neuropsychological assessment: New facts and concepts. In J. Noshpitz et al. (Eds.), *Basic Handbook of Child Psychiatry*. Vol. 5. New York: Basic Books, in press.

___. Syntax in brain-injured children. In M.G. Studdert-Kennedy (Ed.), *Neurobiology of Language Processes*. Cambridge, Mass.: MIT Press, 1983.

___. The developmentally dyslexic brain and the written language skills of children with one hemisphere. In U. Kirk (Ed.), *Neuropsychology of Language, Reading, and Spelling*. New York: Academic Press, 1983.

___. Wilhelm Preyer (1841-1897) and his neuropsychology of language acquisition. *Developmental Neuropsychology*, 1985, 1, 287-315.

___, and Kohn, B. The Active-Passive Test: An age-referenced clinical test of syntactic discrimination. *Developmental Neuropsychology*, 1985, 1, 113-137.

Dennis, M., Farrell, K., Hoffman, H.J., Hendrick, E.B., Becker, L.E., and Murphy, E.G. Recognition memory for item, associative, and serial-order information after temporal lobectomy for seizure disorder. *Neuropsychologia*, in press.

Dennis, M., Fitz, C.R., Netley, C.T., Harwood-Nash, D.C.F., Sugar, J., Hendrick, E.B., Hoffman, H.J., and Humphreys, R.P. The intelligence of hydrocephalic children. *Archives of Neurology*, 1981, 38, 607-615.

Dennis, M., Hendrick, E.B., Hoffman, H.J., and Humphreys, R.P. The language of hydrocephalic children and adolescents. *Journal of Clinical and Experimental Neuropsychology*, in press.

Dennis, M., Lovett, M., and Wiegel-Crump, C.A. Written language acquisition after left or right hemidecortication in infancy. *Brain and Language*, 1981, 12, 54-91.

Dennis, M., Sugar, J., and Whitaker, H.A. The acquisition of tag questions. *Child Development*, 1982, 53, 1254-1257.

Lovett, M.W., Dennis, M., and Newman, J. Making reference: The cohesive use of pronouns in the narrative discourse of hemidecorticate adolescents. *Brain and Language*, in press.

Newman, J., Lovett, M., and Dennis, M. The use of discourse analysis in neurolinguistics: Some findings from the narratives of hemidecorticate adolescents. *Topics in Language Disorders*, in press.

Wiegel-Crump, C.A., and Dennis, M. Development of word-finding. *Brain and Language*, 1986, 27, 1-23.

TOTAL AWARD *$113,600*

Physical Disabilities

ASSESSMENT OF FEEDING THERAPIES: A MULTIDISCIPLINARY EVALUATION OF TREATMENT METHODS FOR SEVERELY DISABLED CHILDREN USING AN INNOVATIVE ASSESSMENT PROTOCOL (OMHF)

SPONSORING ORGANIZATION
The Hugh MacMillan Medical Centre
(formerly, Ontario Crippled Children's Centre)

PRINCIPAL INVESTIGATOR
Dr. David J. Kenny
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Study Description

DURATION
April/83 — February/86

OBJECTIVES
To develop a standard protocol for assessing feeding disorders. To use the protocol to obtain long-term profiles of patients with respect to treatment efficiency, oral-motor development, and dietary and nutritional status.

POPULATION
Children with feeding disorders; occupational therapists, speech pathologists, dentists

KEY FINDINGS
The Multidisciplinary Feeding Profile (MFP) was developed, the first statistically based protocol for the assessment of feeding problems of severely disabled children. In a study with 19 subjects who were dependent feeders, overall agreement among the raters was well within the standards set by other investiga-

tors. A pilot study, conducted with seven subjects over a six-month period, indicated that the MFP was sensitive enough to measure changes in feeding performance over time.

REPORTS/PUBLICATIONS

Kenny, D.J. Assessment and management of feeding disorders: Applied oral physiology. The W.H. Feasby Annual Lecture in Paediatric Dentistry, University of Western Ontario, London, 1985.

___, Koheil, R., and Veerburg, G. Assessment of feeding therapies: A multidisciplinary evaluation of treatment methods for severely disabled children using an innovative assessment protocol. 1986.

Multidisciplinary Feeding Profile for children who are dependent feeders. Presented at the 38th annual meeting of the American Academy of Cerebral Palsy and Developmental Medicine, Washington, D.C., 1984.

TOTAL AWARD *$63,968*

Day Care

AN EXAMINATION OF THE CAPACITY OF SUPERVISED FAMILY DAY CARE TO ADEQUATELY SERVE SPECIAL NEEDS CHILDREN AND THEIR FAMILIES

SPONSORING ORGANIZATION
Carleton University

CO-OPERATING ORGANIZATIONS
Andrew Fleck Child Centre
Gloucester Family Day Care

PRINCIPAL INVESTIGATOR
Dr. Jim Albert
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School of Social Work
Ottawa, Ontario
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Study Description

DURATION
March/80 — October/81

OBJECTIVES
To examine the capacity of supervised family day care (SFDC) programs to adequately serve children and families with special needs. To explore the demands that special needs children place on the programs. To explore the programs' need for extra support and resources to ensure a stable, high quality day care service.

POPULATION
Families with children in SFDC programs; caregivers; home visitors

KEY FINDINGS
Few differences in child and family characteristics were revealed between 50

special needs children and 50 non-special needs children, except for a greater number of boys (64%) in the former group. Of 88 families in the study, 73 had only one parent and that parent was female. In general, parents of the special needs children did not see their children as placing any more demands on them than did the parents of the non-special needs children. There were no overall differences in the way caregivers perceived the special needs or demands of the two groups. By contrast, the home visitor expressed some concern for 90% of the special needs children as compared with 42% of the others. The day care experience of both groups of children was similar, prior to and during the present arrangement. The home visitor spent considerably more time in the home-finding phase of placement activities for special needs children than for the others.

REPORTS/PUBLICATIONS

Albert, J., Wihak, C., and Woolner, S. Supervised family day care and the "special needs" child. 1981.

TOTAL AWARD *$20,227*

A STUDY OF SERVICES FOR SPECIAL NEEDS PRESCHOOL CHILDREN IN METROPOLITAN TORONTO

SPONSORING ORGANIZATION
MCSS Central Region, Toronto Area Office

PRINCIPAL INVESTIGATOR
Dr. Stephen Hagarty

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Study Description

DURATION
October/82 — August/84

OBJECTIVES
To review literature pertaining to effective program activities for special needs children. To develop definitions and a classification system for these children. To describe the social and mental health service delivery systems in Metropolitan Toronto, the characteristics and needs of the children and their families, and the alternative services available. To evaluate the latter.

POPULATION
Staff of service agencies, day care centres, nursery schools, and Children's Aid Societies

KEY FINDINGS
Among 2664 children served by agencies in Toronto, 74% were classified as having special needs; of 15,887 in day care centres and nursery schools, 7% were so classified; for 2515 in Metro Day Care Centres, the rate was 17%. Agencies offered 158 alternative programs: 98 centred on prevention, integration, and support, and 60 were more remedial and therapeutic. Seventy-five programs focussed

on parents, 39 on children, and four on parent and child together. The largest numbers of these programs were provided through Children's Mental Health Centres (51) and Specialized Day Care (45). Day care centres and nursery schools relied heavily on public health nurses in programming, assessment, and treatment planning and implementation. Service system interaction consisted primarily of information sharing and joint case conferencing.

REPORTS/PUBLICATIONS

Community Concern Associates. A guide to identifying the special needs of young children. 1984.

——. Services for special needs preschool children in Metropolitan Toronto. 1984.

TOTAL AWARD *$45,850*

A SURVEY OF PRIVATE-HOME DAY CARE PROGRAMS IN ONTARIO

SPONSORING ORGANIZATION
MCSS Central Region, Toronto Area Office

PRINCIPAL INVESTIGATOR
Barry McPeake

CONTACT PERSON
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Study Description

DURATION
January/82 — March/83

OBJECTIVES
To provide an overview of Ontario private-home day care agency components and clients, including factors affecting program utilization and expansion. To subsequently serve as a foundation for future evaluation of program effectiveness and impact. To determine the agencies' compliance with MCSS's proposed new private-home day care standards.

POPULATION
Agency directors, day care providers, and home visitors; parents of children served

KEY FINDINGS
Thirty-nine agencies served 4962 children in 2152 providers' homes. Eighteen of the agencies were operated by municipalities, 14 by non-profit organizations, and 7 by commercial operators. Of the children served, 4200 required subsidy for their care; 2592 were infants or toddlers or of pre-school age; and 179 had special needs, with 56 being mentally or physically handicapped. Fees charged

per child per day ranged from $10.00 to $14.00, with the provider receiving $7.00 to $11.25 and the agency $1.00 to $5.00. All agencies employed home visitors, who provided monitoring and matching services. Some agencies provided additional services such as training and program development. Single-parent women who were employed part or full time were the main users of the agencies. Thirty-three agencies confirmed that their practices corresponded with over 70% of the items in the proposed standards.

REPORTS/PUBLICATIONS
PMA Consulting Group Ltd. A survey of private-home day care in Ontario. 1983.

TOTAL AWARD *$63,500*

PRIVATE HOME DAY CARE PROVIDERS: AN ONTARIO SURVEY OF THEIR PERSONAL AND PSYCHOLOGICAL CHARACTERISTICS (OMHF)

SPONSORING ORGANIZATION
University of Guelph

CO-OPERATING ORGANIZATION
University of Western Ontario

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/83 — August/85

OBJECTIVE
To gather information about supervised providers of home day care in order to determine which of their personal and psychological characteristics are related to provider competence.

POPULATION
Supervised providers; home visitors

KEY FINDINGS
The typical day care provider was a female anglophone high school graduate, married with two children, who had worked as a provider for 2.5 years. As a group, the 161 providers appeared to be warm, nurturant, orderly people who offered good quality care. A higher level of day care quality was linked with those providers who showed greater intellectual curiosity and assertiveness and less traditional female vocational interests. The providers who were the most warm and the most orderly were no more likely to be the very best providers than those who displayed these traits to a lesser degree.

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REPORTS/PUBLICATIONS

Stuart, B., and Pepper, S. Private home day care providers in Ontario: A study of their personal and psychological characteristics. 1985.

TOTAL AWARD *$21,961*

INFORMAL FAMILY DAY CARE: A STUDY OF CAREGIVERS (OMHF)

SPONSORING ORGANIZATION
University of Western Ontario

PRINCIPAL INVESTIGATOR
Dr. Susan Pepper
University of Western Ontario
Department of Psychology
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N6A 5C2 Tel.: (519) 679-6457

Study Description

DURATION
April/85 — October/85

OBJECTIVES
To gather information about unsupervised caregivers who provide home day care in order to determine which of their personal and psychological characteristics are related to provider competence. To explore methods of recruiting these caregivers as participants in research.

POPULATION
Unsupervised caregivers

KEY FINDINGS
The 79 caregivers appeared to be very similar to the supervised providers (see previous listing), except that they more often had postsecondary education (47% as compared with 24%) and viewed their role more as caretaking than as educational. Although rated somewhat less highly than providers on measures of day care quality, they seemed to offer an acceptable level of care. They also differed from the providers in that higher quality care was related to their level of education. With respect to recruiting caregivers as participants in research, the investigators received 373 responses to their advertisements, with a weekly advertising paper yielding the most respondents.

REPORTS/PUBLICATIONS
Pepper, S., and Stuart, B. Informal family day care: A study of caregivers. 1985.

TOTAL AWARD *$11,423*

Parenting

SUPPORT SERVICES FOR SINGLE ADOLESCENT MOTHERS IN ONTARIO

SPONSORING ORGANIZATION
The Canadian Council on Social Development

PRINCIPAL INVESTIGATOR
Dr. Harry MacKay
The Canadian Council on Social Development
55 Parkdale Avenue
Box 3505, Station C
Ottawa, Ontario
K1Y 4G1 Tel.: (613) 728-1865

Study Description

DURATION
February/80 — June/83

OBJECTIVE
To determine single adolescent mothers' needs for, and use of, community services.

POPULATION
Single adolescent mothers

KEY FINDINGS
Information was obtained from 87 mothers in four urban areas concerning their background, current situation, and perceived needs in the areas of income, housing, education, employment, mental and physical health, and child care.

REPORTS/PUBLICATIONS
MacKay, H., and Austin, C. *Single Adolescent Mothers in Ontario.* Ottawa: The Canadian Council on Social Development, 1983.

TOTAL AWARD *$43,260*

Community Programs

A STUDY OF SERVICE DELIVERY MODELS FOR ISOLATED COMMUNITIES

SPONSORING ORGANIZATION
MCSS, North Regional Office

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
November/81 — October/82

OBJECTIVE
To identify the key elements of service delivery necessary to provide good quality social services to difficult-to-reach regions of Northern Ontario.

POPULATION
Social service personnel

KEY FINDINGS
The key elements for social service planning are divided into four categories. (1) Definitions: Agreement must be reached on the terms to be used that are the most helpful for planning purposes. (2) Value Issues: Clarification of value bases and related principles is necessary to determine service implementation goals that are both desirable and feasible. (3) Cornerstones for Planning Human Service Systems: How three areas — accessibility of services, suitability of service catchment areas, and socioeconomic characteristics of communities —

are dealt with becomes the cornerstone to more operational considerations. (4) Operational Features: Three major decisions must be made — the kind of service implementation model, the kind of personnel model, and the kinds of strategies for service co-ordination.

REPORTS/PUBLICATIONS

Applied Research Consulting House Ltd. Key elements for the planning of service delivery to small Northern communities. 1982.

TOTAL AWARD *$47,923*

A STUDY ON SOCIAL SERVICE PLANNING FOR BOOM/BUST COMMUNITIES

SPONSORING ORGANIZATION
MCSS, North Regional Office

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
November/81 — October/82

OBJECTIVE
To gain knowledge on boom/bust phenomena in order to facilitate planning for efficient and effective delivery of services to children and families in boom/bust communities.

POPULATION
Child and family service personnel, municipal and provincial government personnel, community leaders, and librarians in boom/bust communities

KEY FINDINGS
A review of the literature indicated that there is considerable information available on boom towns, a lesser amount on bust towns, and very little on the role of social services. In general, boom and bust situations are characterized by identifiable stages of development and by similar stress conditions. The way stress is experienced is complex and has different effects — stress motivates some people to action and causes others to break down. Strains develop on community and social services, particularly in boom towns, mostly because of

inability to meet the rapid growth in demand. Although the research to date is only suggestive, it is estimated that about 5% to 10% of the people have most of the problems requiring extensive service intervention. Various helping networks emerge naturally (e.g., between relatives, neighbours), particularly in bust towns, and can be fostered.

REPORTS/PUBLICATIONS

Applied Research Consulting House Ltd. Boom/bust communities: Implications for social service planning. 1982.

TOTAL AWARD *$40,172*

Test Development/Assessment

AN EVALUATION OF THE MULTIDIMENSIONAL APTITUDE BATTERY WITH JUVENILE OFFENDER AND ADOLESCENT PSYCHIATRIC POPULATIONS (OMHF)

SPONSORING ORGANIZATION
University of Western Ontario

CO-OPERATING ORGANIZATIONS
London Psychiatric Hospital
St. Thomas Psychiatric Hospital
Elgin/Middlesex Detention Centre
Adult Probation and Parole Board (London & District)

PRINCIPAL INVESTIGATOR
Dr. Douglas N. Jackson
University of Western Ontario
Department of Psychology
London, Ontario
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Study Description

DURATION
April/83 — May/85

OBJECTIVES
To confirm that the constructs assessed by the Multidimensional Aptitude Battery (MAB) are equivalent to those assessed by the Wechsler Adult Intelligence Scale — Revised Edition (WAIS-R). To evaluate the comparability of computerized administration and standard administration of the MAB.

POPULATION
High school and university students; young adult parolees and psychiatric patients

KEY FINDINGS

Comparison of a sample of high school and university students with a sample of parolees and hospitalized psychiatric patients indicated that the MAB has a reasonable correspondence with the WAIS-R. With respect to assessing computerized administration of the MAB, administration of its Verbal scale in a paper-and-pencil format and in a computerized format to 64 participants indicated no overall significant differences in performance, anxiety levels, or subjective reactions, and previous computer experience appeared to make no difference.

REPORTS/PUBLICATIONS

Jackson, D.N. Equating the Multidimensional Aptitude Battery and the WAIS-R. Presented in the symposium "The Development of the Multidimensional Aptitude Battery" at the annual meeting of the American Psychological Association, Toronto, Aug. 1984.

___. *Multidimensional Aptitude Battery*. Port Huron, Mich.: Research Psychologists Press, 1984.

McLean, D.F. Design of an intelligence test. Presented in the symposium "The Development of the Multidimensional Aptitude Battery" at the annual meeting of the American Psychological Association, Toronto, Aug. 1984.

Stockwell, R.G. Factor structure comparisons between the Multidimensional Aptitude Battery (MAB) and the WAIS-R in normal and psychiatric populations. Presented in the symposium "The Development of the Multidimensional Aptitude Battery" at the annual meeting of the American Psychological Association, Toronto, Aug. 1984.

TOTAL AWARD *$27,924*

MICROCOMPUTER-AIDED VERSUS MANUALLY ADMINISTERED PROCEDURES OF A VISUAL PERCEPTUAL MATCHING ASSESSMENT AND TRAINING TASK FOR MULTIPLY DISABLED CHILDREN (OMHF)

SPONSORING ORGANIZATION
The Hugh MacMillan Medical Centre
(formerly, Ontario Crippled Children's Centre)

CO-OPERATING ORGANIZATIONS
Friends Day Care
Blythwood Public School
Bermondsey School for the Trainable Retarded
Princess Anne School for the Trainable Retarded

PRINCIPAL INVESTIGATOR
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Study Description

DURATION
April/83 — February/85

OBJECTIVE
To compare the effectiveness of computerized and manual administrations of an assessment and training task for children with multiple disabilities.

POPULATION
Non-speaking or verbally limited children with other developmental or physical disabilities

KEY FINDINGS
Significant differences were found in the performances of 24 subjects on three versions of the Perceptual Matching Task: the highest scores were obtained on the manual version, the second highest on the passive computerized version,

and the lowest on the active computerized version. Mental age was related to performance on all versions, that is, an increasingly higher mental age was required to do well on the manual, passive, and active versions respectively. After three 45-minute training sessions, one subject still could not master the task in the manual version, three could not in the passive, and six could not in the active. Anecdotal evidence indicates that most subjects were eager to work on the computer, although a few withdrew or refused to use it. Also, subjects tended to be more distractible during the computerized tasks than during the manual one.

REPORTS/PUBLICATIONS

Verburg, G., and Diederichsen, E. Microcomputer aided versus manually administered procedures of a visual perceptual matching assessment and training task for multiply disabled children. 1985.

TOTAL AWARD *$38,694*

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